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RB INYOKERN DATA CENTER

Application for Small Power Plant Exemption (SPPE)

Inyokern, Kern County, California

Docket Number – 26-SPPE-01

Application

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EXECUTIVE SUMMARY

Project Overview

R&L Capital, Inc. (the “Applicant”) submits this Application for a Small Power Plant Exemption (SPPE) to the California Energy Commission (the “Commission” or “CEC”) for the emergency backup generating facility associated with the RB Inyokern Data Center (“RBIDC” or “the Project”), a proposed 99 MW hyperscale data center on an approximately 50 acre site in Inyokern, eastern Kern County (the “Project Site”). The approximately 238,000-square-foot facility will house six modular data halls supporting cloud computing and Artificial Intelligence (AI) workloads, with construction beginning in 2027 and full operations anticipated in 2031.

Project Benefits

The RBIDC represents significant private investment in eastern Kern County, supporting a 48-month development and construction period with an average workforce of approximately 300, peaking near 600, primarily drawn from regional union labor pools, plus 30 to 60 permanent operations positions. The facility is designed to Tier III/IV reliability standards with greater than 99.982 percent availability and a best-in-class power usage effectiveness (PUE) of approximately 1.41 and includes 1 MW of on-site solar photovoltaic (PV) generation as an ancillary energy-efficiency feature.

Environmental Compliance

The Applicant’s analysis under the California Environmental Quality Act (CEQA) demonstrates less-than-significant impacts across all environmental resource areas with mitigation incorporated where applicable. The Project will be served by the Inyokern CSD (the “CSD” or “District”), which has confirmed sufficient water allocation to meet the Project’s *de minimis* demand (0.185% of projected basin extraction). The Project’s water demand is governed by the Indian Wells Valley Groundwater Authority’s Groundwater Sustainability Plan, including annual pumping allocations and any applicable augmentation fees. Compliance with the GSP is required under Mitigation Measures MM 4.10-2 and MM 4.10-3. The 40 Caterpillar 3516E 3 MW emergency generators use the cleanest available emergency backup technology — Tier 2-certified base engines paired with Johnson Matthey CompactSCRT aftertreatment (SCR + DPF) achieving Tier 4 Final-equivalent stack emissions — and qualifying as Best Available Control Technology (BACT) under Eastern Kern Air Pollution Control District (EKAPCD) requirements. As discussed in Section 6.4.5, this configuration is required for permanent Level 1 backup applications because NFPA 110 TIA 22-1 (effective May 8, 2024) prohibits EPA-mandated inducement shutdowns associated with factory-integrated Tier 4 Final engines. Generators would operate only during utility outages and limited testing, with no export to the electrical grid.

Regulatory Framework

The emergency generating facility, configured with two generator yards of 20 units each providing N+1 redundancy per yard (N+2 campus-wide), serves only on-site critical loads at a maximum 99 MW load consistent with Southern California Edison (SCE) Method of Service Study MOS174

(March 30, 2026), keeping the Project within CEC jurisdictional limits under Public Resources Code (PRC) §25541. The Project does not interconnect to the California Independent System Operator (CAISO)-controlled grid; interconnection is processed directly through SCE as the interconnecting utility under SCE's retail tariff.

Recommendation

This Application demonstrates full compliance with CEC requirements and CEQA standards. The Project advances California's digital infrastructure using the cleanest available emergency backup technology while supporting regional economic development. The Applicant respectfully requests that the Commission grant the requested Small Power Plant Exemption for the Project.

SECTION 1.0 — PROJECT DESCRIPTION

This section provides the Project Description required by 20 CCR Appendix B, Subsection (a) (general project information), Subsection (b)(1) (generation facility description), Subsection (e)(1) (facility closure plan), Subsection (f) (alternatives framing), and Subsection (i) (discretionary approvals and permits). Section 1 also provides the Environmental and Regulatory Setting Summary that consolidates the findings of the detailed environmental analyses provided in Section 4. The transmission lines description, design, and operation required by 20 CCR Appendix B Subsection (b)(2) is provided in Section 2 of this Application.

This Application is submitted at the conceptual design stage. Project parameters, dimensions, and technical specifications described herein reflect the current level of design development and are subject to refinement during final engineering. Where specific values are identified as conceptual or approximate, they will be confirmed and updated in accordance with the mitigation measures identified in this Application, recommendations from and requirements of the Commission, and final Kern County permitting requirements.

1.1 Project Overview

R&L Capital, Inc. (the “Applicant”) submits this Application for a Small Power Plant Exemption (SPPE) to the California Energy Commission (the “Commission” or “CEC”) pursuant to Public Resources Code (PRC) §25541 and Title 20, California Code of Regulations (CCR), Division 2, Chapter 5, §1934 et seq. The Application also addresses the requirements of the California Environmental Quality Act (CEQA; PRC §21000 et seq.) and the CEQA Guidelines (Title 14, CCR, Division 6, Chapter 3, §15000–15387), including the CEQA Appendix G Environmental Checklist.

The RB Inyokern Data Center (the “RBIDC” or the “Project”) is a 99 MW, approximately 238,000-square-foot single-story hyperscale data center facility located in Inyokern, eastern Kern County, California, on 50 acres comprising Assessor’s Parcel Numbers (APNs) 084-010-43, 084-010-44, 084-010-45, and 084-010-48. The Applicant submits this Application for a Small Power Plant Exemption for the emergency backup generating facility associated with this data center Project.

The SPPE component of the Project consists of diesel-fired emergency generator sets sized to serve the 99 MW facility, designed exclusively to serve on-site critical loads during utility outages and for limited commissioning, testing, and maintenance. The generator configuration reflects two generator yards of 20 units each providing N+1 redundancy per yard (N+2 campus-wide); however, the maximum operational load served under any operating scenario is 99 MW, consistent with the Project’s confirmed 99 MW utility interconnection and the Southern California Edison (SCE) Method of Service (MOS) documentation. The Project will not exceed the CEC’s jurisdictional limits under PRC §25541. The emergency generating facility would not export electricity to the transmission or distribution grid and would not operate as a merchant generating facility. The Commission has exclusive authority pursuant to PRC §25500 et seq. to certify thermal power plants above the applicable statutory threshold; the SPPE process provides the pathway by which the Commission may grant an exemption from its licensing authority for eligible facilities.

The broader Project includes a hyperscale data center campus, a customer-owned electrical substation and Point of Interconnection (POI), the existing Inyokern 115 kV Substation, two SCE-constructed 115 kV overhead subtransmission lines and associated SCE electrical infrastructure, cooling and water systems, a wastewater and stormwater retention basin, an on-site groundwater well for emergency water supply, and a 1 MW photovoltaic (PV) solar system installed on the rooftop and parking canopies of the data center campus to supply ancillary power for daytime electrical demand. Kern County retains land use decision-making authority over the data center campus improvements and related site development. This Application provides a complete Project description and comprehensive CEQA environmental analysis to support the Commission's review of both the SPPE component and the combined impacts of the data center campus and generating facility.

1.2 Project Location and Site

1.2.1 Regional Location

The Project is located in the Indian Wells Valley within the western Mojave Desert in the unincorporated community of Inyokern, northeastern Kern County, California. The site is situated at the northwest quadrant of State Route 178 (SR-178 / West Inyokern Road) and U.S. Highway 395 (US-395), approximately 5.5 miles west of the City of Ridgecrest. The Indian Wells Valley is bounded by Owens Valley to the north and the Garlock Fault and El Paso Mountains to the south. The regional setting is characterized by arid desert conditions, low-density rural development, defense and aerospace land uses associated with the China Lake Naval Air Weapons Station (NAWS), general aviation uses at the Inyokern Airport which abuts the northern perimeter of the Project, utility infrastructure, solar energy development, and scattered commercial and industrial uses.

The Project Site is identified on USGS 7.5-minute quadrangle mapping, and regional location, vicinity, and site maps are provided as Figures 1-1, 1-2, and 1-3, respectively. The Project is accessible via SR-178 and US-395, which serve as the primary regional transportation corridors for the area.

1.2.2 Site Description and Legal Description

The data center campus is located north of SR-178 in Section 29, Township 26 South, Range 39 East, Mount Diablo Base and Meridian (MDB&M). The proposed customer-owned substation, Point of Interconnection (POI), and SCE-constructed 115 kV overhead subtransmission line electrical interconnection facilities are located south of SR-178. The Project Site encompasses approximately 50 acres across four Kern County Assessor's Parcel Numbers (APNs) as identified in Table 1-1 below. R&L Capital, Inc. holds fee ownership of all parcels required for the Project. A Lot Line Adjustment (LLA) / parcel consolidation (Lot Line Adjustment No. 28-25) is required to place the Project on a single legal parcel prior to construction, consistent with CEC Appendix B requirements; this action does not need to occur prior to the Commission's decision on this Application but must be completed prior to the start of construction.

The Project’s CEQA project boundary extends beyond the four on-site APNs to include the off-site SCE electrical infrastructure required to serve the facility, consisting of: (1) two 115 kV overhead subtransmission line corridors between the existing Inyokern 115 kV Substation and the new Project substation (Route 1, approximately 8,000 linear feet; Route 2, approximately 4,000 linear feet); (2) a westward expansion of the existing Inyokern 115 kV Substation footprint (approximately 136 feet by 101 feet); and (3) two SCE-owned utility fiber optic routes (Path A, approximately 3,200 linear feet; Path B, approximately 8,250 linear feet). The SCE facilities traverse unincorporated Kern County on parcels not owned by the Applicant; an APN matrix and land ownership analysis for the SCE transmission corridors will be provided as a supplement to this Application upon finalization of SCE’s route alignments and Real Properties rights analysis, consistent with SCE MOS174 (March 30, 2026).

Table 1-1. Project Parcels and Planned Uses (20 CCR Appendix B §(a)(1)(B))

APN	Area / Acres (estimated)	Planned Project Use
084-010-43	~13 acres	Data center campus and supporting improvements
084-010-44	~13 acres	Data center campus and supporting improvements
084-010-45	~13 acres (portion)	Data center campus and supporting improvements; rooftop and parking-canopy PV (ancillary, where feasible); potential related facilities/easements as applicable
084-010-48	~11 acres (portion)	Project Point of Interconnection (POI) and customer-owned substation facilities/easement; on-site electrical infrastructure
SCE Routing	~ SCE determination	SCE-determined 115 kV overhead subtransmission line corridors, fiber optic routes, and related facilities from existing Inyokern Substation to Project POI; specific APNs and routing determined by SCE per MOS174 final engineering
Totals	- 50 acres	

Note: Acreages are approximate at conceptual design stage. Final parcel configuration is subject to Lot Line Adjustment No. 28-25 and parcel consolidation prior to construction. General Plan designation and zoning consistency are addressed in Section 4.11 (Land Use and Planning).

The total development footprint, including the data center campus, the customer-owned substation, and on-site electrical infrastructure, encompasses approximately 38.18 acres (1,663,349 square feet) within the approximately 50-acre Project site. This acreage reflects the on-site development footprint only; the off-site SCE transmission line corridors and Inyokern Substation expansion area are additional Project-related ground disturbance areas addressed in Section 4.18 and to be quantified in a supplemental APN matrix. The Project Site is zoned M-2 PD (Medium Industrial, Precise Development Combining) under the Kern County Zoning Ordinance and is located within the Inyokern Specific Plan area. The Project Site is currently vacant and undeveloped land. Project street addresses will be assigned during the building permit process and are not available at the time of this submittal.

1.2.3 Visual Setting

As described in Section 4.1 (*Aesthetics*) and the Visual and Lighting Analysis (Appendix I.1), the Project Site is located in a non-urbanized area of the western Mojave Desert characterized by flat terrain, low-lying desert scrub vegetation, and surrounding industrial and commercial development, including the adjacent RB Solar Project to the north, a wastewater treatment facility to the north, and commercial uses (Chevron service station, Ace Hardware) immediately south of SR-178. There are no California Scenic Highway Act-designated State Scenic Highways within Kern County. The nearest eligible scenic highway is SR-14, located approximately 3.2 miles west. The Pacific Crest Trail corridor is located approximately 12.5 miles west of the Project Site.

Pre-construction photographic documentation and post-construction photo-realistic visual simulations from six (6) Key Observation Points (KOPs) are provided in Appendix A.2 and the Visual and Lighting Analysis (Appendix I.1), consistent with the requirements of CEC Appendix B §(g)(6)(C). Visual impact findings by KOP are presented in Section 4.1. Visual impacts across all six KOPs are evaluated as less than significant, consistent with the completed analysis in Section 4.1.4 (*Aesthetics*; Appendix I.1). With implementation of the design measures discussed in Section 4.1, no additional mitigation measures are required for Project-related and cumulative aesthetic impacts.

1.3 Project Schedule and Ownership

Construction of the RBIDC will begin in 2027, following receipt of required permits and entitlements. The Project development and construction process encompasses approximately 48 months, with full-scale operations anticipated to commence in 2031. Construction is organized into three primary phases: (1) site preparation, grading, and infrastructure development; (2) structural and building shell construction; and (3) mechanical, electrical, and data hall systems installation, commissioning, and closeout. Construction activities will generally occur Monday through Friday between 7:00 a.m. and 6:00 p.m., with occasional deviation as needed and permitted by the County. The Project schedule is summarized in Table 1-2 below.

Table 1-2. Project Schedule (20 CCR Appendix B §(a)(2))

Milestone	Anticipated Date / Duration
Construction Start	2027 (following permit issuance)
Project Development	Approximately 48 months
Initial Start-Up / Commissioning	Mid-2028 (temporary service); 2029 (full 99 MW)
Full-Scale Operations	2029 (full 99 MW per MOS174)
Estimated Project Life	25–30 years (see Section 1.13, Facility Closure Plan)

Project Owner / Applicant

R&L Capital, Inc., P.O. Box 907, Trona, California 93592, Attn: Robbie Barker.

Telephone: (760) 264-5760

Email: General@vwconstructionservices.com

CEC Lead Agency Contact

Ali Jahani, Project Manager, Siting, Transmission and Environmental Protection (STEP) Division, California Energy Commission, 715 P Street, Sacramento, California 95814. Telephone: (279) 226-1175. Email: ali.jahani@energy.ca.gov.

Operations Workforce

During operation, the Project will employ approximately 30 to 60 permanent employees, supplemented by contract personnel as needed (see Socioeconomic Analysis, Section 2.4). Workforce levels and labor source assumptions are addressed in further detail in Section 1.9.14 and Section 4.14 (*Population and Housing*) of this Application.

Ownership and Legal Interest

Project Site

R&L Capital, Inc. holds fee ownership of all parcels required for the Project (APNs 084-010-43, 084-010-44, 084-010-45, and 084-010-48) as identified in Table 1-1. APN 084-010-48 (Applicant-owned, located south of SR-178) hosts the customer-owned substation, the Project's Point of Interconnection (POI), and the 30-foot subtransmission easement corridor connecting back to the campus. R&L Capital, Inc. will own and operate the RBIDC campus, including the emergency backup generating facility that is the subject of this SPPE Application.

Transmission Line Corridors

The Project's CEQA project boundary extends beyond the four on-site APNs to include off-site SCE electrical infrastructure in two categories. Subject to final routing by SCE, and as indicated in SCE Method of Service (MOS) Study MOS174 (March 30, 2026), the Project will be served by two (2) overhead 115 kV subtransmission line corridors (Route 1, approximately 8,000 linear feet; Route 2, approximately 4,000 linear feet) and two (2) SCE-owned utility fiber optic routes (Path A, approximately 3,200 linear feet; Path B, approximately 8,250 linear feet) running east from APN 084-010-48 to the existing Inyokern SCE Substation (APN 352-502-23-1). These corridors traverse third-party parcels in unincorporated Kern County. An APN matrix and land ownership analysis will be submitted upon finalization of SCE's Real Properties rights analysis under MOS174. A westward expansion of the existing Inyokern Substation footprint (approximately 136 feet by 101 feet) is also included within this boundary. SCE will own and operate the utility-side interconnection facilities consistent with the MOS and applicable tariff requirements.

1.4 Generation Facility Description, Design, and Operation

This section provides the Generation Facility Description, Design, and Operation as required by 20 CCR Appendix B §(b)(1). This Application is submitted at the conceptual design stage; detailed engineering specifications, drawings, and equipment data are provided in Appendix A.1 (Site Plan), Appendix A.2 (Visual Renderings), Appendix A.3 (Generator Data and Specifications), and the Appendix L series (Electrical Interconnection). Parameters described herein will be confirmed and refined through final engineering and permitting by Kern County.

1.4.1 Data Center Campus

The Project consists of a single integrated data center building of approximately 238,000 square feet with a maximum structural height of 30 feet at the top of rooftop mechanical equipment and solar panels. The building is designed to accommodate six modular data halls, each with an Information Technology (IT) equipment load of 10 to 12 MW, scalable to rack densities ranging from 10 kW to 50 kW to support high-performance computing (HPC) and Artificial Intelligence (AI) workloads. Aggregate IT load across six data halls totals approximately 70 MW, with a total electrical demand of approximately 99 MW inclusive of mechanical, lighting, and facility systems. The Project is designed to achieve a power usage effectiveness (PUE) of approximately 1.41, consistent with industry best-in-class performance for data centers serving HPC and AI workloads.

The building includes secure data center suites housing client servers and associated infrastructure, and administrative and support facilities including lobby, restrooms, conference rooms, offices, a loading dock, and storage areas. The facility is expected to accommodate approximately 100 to 115 employees and visitors per day, including deliveries and service personnel. Site access is provided via a primary entrance on SR-178, with an internal circulation road looping around the Project Site. The Project Site also provides approximately 155 dedicated on-site parking spaces.

1.4.2 Emergency Backup Generating Facility (SPPE Component)

Backup power for the facility will be provided by 40 Caterpillar 3516E diesel-fired generators, each rated at 3 MW (3,000 ekW / 3,750 kVA). The base engines are EPA Tier 2-certified for Emergency Stationary Applications. All generators will be equipped with externally applied Johnson Matthey CompactSCRT aftertreatment, including Selective Catalytic Reduction (SCR), Diesel Exhaust Fluid (DEF) tanks, and Diesel Particulate Filters (DPF), achieving Tier 4 Final-equivalent emission levels at stack. This Tier 2 base + external aftertreatment configuration preserves NFPA 110 Level 1 reliability by avoiding the EPA-mandated inducement shutdowns associated with factory-integrated Tier 4 Final engines (see Section 6.4.5). Under standard emergency operation, when all generators are active, each unit will operate at no more than 80 percent of its peak rated capacity to ensure reliability and longevity.

Each generator will be supplied as an integrated package system containing both the prime mover and alternator, controlled by a dedicated programmable logic controller (PLC) located within the 480-volt main switchboard of the corresponding RBIDC building. Each generator will operate autonomously, with its own independent PLC designed to automatically initiate generator startup upon loss of utility power. Once utility service is restored and verified as stable, the PLC will transfer the load back to utility power and shut down the generator in a controlled sequence.

Each generator package will incorporate a SCR system and DEF storage tank within a compact enclosure. Generators will be installed within two secured generator yards, positioned on opposite sides of the main building to ensure load distribution and operational redundancy. All generators will be installed within secondary containment basins to mitigate potential environmental impacts in the event of fuel or fluid leakage.

The generator system reflects two generator yards of 20 units each providing N+1 redundancy per yard (N+2 campus-wide); however, the Project's maximum operational load served under any operating scenario is 99 MW, as defined by the Project's confirmed 99 MW utility interconnection and the SCE Method of Service (MOS) documentation. The Project will not exceed the CEC's jurisdictional limits under PRC §25541. Generator fuel, exhaust, and control parameters are provided in Table AQ-1 of Appendix A.3 (Generator Data and Specifications).

Emissions Controls

Each generator is equipped with exhaust after-treatment controls including selective catalytic reduction (SCR), diesel particulate filters (DPF), and diesel exhaust fluid (DEF) storage and dosing systems, consistent with applicable U.S. EPA emission standards for engines of this size. The specific EPA emission tier certification, applicable California Air Resources Board (CARB) and

EKAPCD permitting basis, and detailed emissions controls specifications are described in Section 4.3 (*Air Quality*) and the Air Quality Impact Analysis (AQIA; Appendix F.1), which was prepared consistent with EKAPCD Guidelines and CEC Appendix B §(g)(8)(A)–(K).

Operating Profile

Generators are designed exclusively to serve on-site critical loads during utility outages and for limited commissioning, testing, and maintenance. Generators will not export power to the grid, participate in demand response, peak shaving, or grid-support operations. In accordance with CARB requirements for emergency standby engines, testing and maintenance operation is subject to regulatory hour limitations and will be documented through operating logs as described in Section 4.3 (*Air Quality*) and the AQIA. Once utility service is restored and verified as stable, the PLC transfers load back to utility power and shuts down generators in a controlled sequence. During standard emergency operation, each unit operates at no more than 80 percent of peak rated capacity to ensure reliability and longevity.

Uninterruptible Power Supply (UPS) Systems

Each data hall is served by a redundant Uninterruptible Power Supply (UPS) system providing instantaneous protection from utility interruptions and frequency fluctuations. IT equipment would be configured with dual power cords connected to separate critical electrical lineups designed to share load under normal conditions and automatically transfer the entire load to a single source if one becomes unavailable. Electrical loads on each redundant critical system will be continuously monitored through the Building Automation System (BAS); an alarm activates at 90 percent of nominal operating capacity to prompt corrective action.

1.4.3 Fuel System

The backup generators are intended to operate on renewable diesel (RD) when available as the preferred fuel, consistent with air quality and emissions reduction objectives. Ultra-low sulfur diesel (ULSD) will be used as an alternative when renewable diesel is not readily accessible. Each generator features a built-in day tank with connections to centralized on-site fuel storage tanks.

The proposed six 100,000-gallon storage tanks will be double-walled with integrated leak detection systems or installed within secondary containment structures. Kern County Code §18.80.030(T) requires the Kern County Fire Marshal to approve the storage of flammable and combustible liquids in excess of 12,000 gallons per tank and an aggregate maximum of 48,000 gallons, when accessory to a permitted use in the M-2 Zoning District. The Applicant has requested written approval from the Kern County Fire Marshal to store the proposed six 100,000-gallon storage tanks, with an aggregate total of 600,000 gallons.

Combined generator and secondary fuel tanks provide sufficient storage to sustain 24 to 72 hours of continuous emergency operation at full design load, consistent with the Tier III/IV reliability design standard.

Diesel fuel will be delivered to the Project site by licensed fuel haulers via SR-178 and US-395. Primary fuel offloading and secondary containment are provided within the fuel storage area.

Diesel Exhaust Fluid (DEF) is used for exhaust aftertreatment; each generator enclosure includes a DEF tank, refilled from drums, totes, or bulk tanker trucks. A Spill Prevention, Control, and Countermeasure (SPCC) Plan will be prepared and implemented prior to facility operations. Fuel storage, handling, spill prevention, and secondary containment are addressed in Section 4.9 (*Hazards and Hazardous Materials*) and the Phase I Environmental Site Assessment (Appendix J.1).

1.4.4 Cooling System

Heat rejection will be accomplished through hybrid cooling towers and water-cooled chillers designed to handle the full campus thermal load. Cooling towers include free-cooling coils capable of reducing or eliminating water usage under favorable ambient conditions.

The chiller plant will include both high-temperature and low-temperature water-cooled chillers, supported by the hybrid cooling chillers. The high-temperature chillers and cooling chillers will supply cooling water for both direct liquid cooling of IT racks and air cooling of the data halls. Cooling water will be distributed to coolant distribution units, which will transfer heat to technical water that is then circulated to the IT racks for direct liquid cooling. The low-temperature chillers and cooling towers will provide chilled water for air cooling in critical electrical rooms and other technology spaces.

Potable water provided by the Inyokern CSD will be used for cooling and irrigation, subject to applicable CSD service conditions, conservation requirements, and final engineering review.

Both data halls and office areas will require minimal humidification. Although these systems consume less water than the cooling towers, they will still be connected to the same water treatment systems. The cooling chillers will generate some discharge, while the humidification system will produce a negligible amount. Cooling towers will operate at a minimum of 5.0 cycles of concentration, consistent with Inyokern CSD Will Serve Letter requirements, and discharge water will be managed in accordance with a customized water treatment plan.

Non-IT administrative and general use areas — such as administrative offices, loading zones, storage rooms, and corridors — will be conditioned using a network of variable refrigerant flow (VRF) split-system air conditioners. These systems will include roof-mounted condensing units and distributed fan coil units throughout the spaces.

A visible water vapor plume analysis from the cooling towers is provided in Appendix E.4 (Thermal Plume Analysis) and Table AQ-2 of Section 4.3 (*Air Quality*), as required by CEC Appendix B §(g)(6)(E). Cooling system drift, emissions, and water usage are evaluated in Section 4.3 (*Air Quality*) and the AQIA (Appendix F.1), and in Section 4.10 (*Hydrology and Water Quality*) and the Water Supply Assessment (Appendix E.3).

1.4.5 Water Supply and Conveyance

The Project is proposed to be annexed into the Inyokern Community Services District (the “CSD”, the “Inyokern CSD” or the “District”) for domestic water, wastewater, stormwater, and sanitary sewer service. The Inyokern CSD has issued an executed Will Serve Letter dated April 2, 2026

confirming sufficient water allocation, wastewater treatment capacity, and infrastructure capacity for construction and facility operations. On-site storage tanks and one on-site well are maintained as redundant water supply measures consistent with the facility's Tier III/IV reliability design standard. The Project will utilize potable water provided by the CSD.

Total annual operational water usage is estimated at approximately 12 to 16 million gallons per year (MGY), with the majority allocated to direct liquid cooling and data hall air cooling, and smaller portions for domestic uses and irrigation. These estimates are consistent with the Inyokern CSD's executed Will Serve Letter (April 2, 2026), which establishes the governing service envelope for planning purposes: Average Day Demand (ADD) approximately 40,430 GPD, Maximum Day Demand (MDD) approximately 60,645 GPD, Peak Hour Demand (PHD) approximately 101,075 GPD, fire flow 3,000 GPM at 20 psi residual for a minimum of four hours, and cooling tower makeup water approximately 28,500 GPD. Final demand figures will be verified by the Applicant's licensed civil engineer prior to issuance of the Water Service Agreement. Landscape irrigation is designed to achieve at least a 20 percent reduction below the Maximum Applied Water Allowance (MAWA), consistent with the California Model Water Efficient Landscape Ordinance. Water supply, demand, and conservation measures are addressed in Section 4.10 (*Hydrology and Water Quality*) and the Water Supply Assessment (Appendix E.3).

1.4.6 Pollution Control and Environmental Protection Systems

The Project incorporates pollution control and environmental protection systems including:

- Exhaust aftertreatment controls (SCR, DPF, DEF) on all diesel generators, meeting applicable U.S. EPA, EKAPCD, and CARB requirements as evaluated in the AQIA (Appendix F.1).
- Stormwater pollution prevention and Best Management Practices (BMPs) implemented through a Stormwater Pollution Prevention Plan (SWPPP) prepared pursuant to the State Construction General Permit (see Section 4.10 and Appendix E.1).
- On-site stormwater retention basin (approximately 2.2 acre-feet retention volume) designed to comply with applicable drainage standards and FEMA Zone A requirements (see Section 4.10).
- Secondary containment and spill prevention measures for fuels and other regulated materials, including an SPCC Plan (see Section 4.9 and Appendix J.1).
- Construction-phase fugitive dust control and emissions reduction measures consistent with EKAPCD regulations (see Section 4.3 and Appendix F.1).
- Xeriscape landscaping incorporating drought-tolerant native plant materials consistent with arid Kern County conditions.

1.4.7 Customer-Owned Substation, POI, and On-Site Electrical Infrastructure

The Project will be served by a customer-owned substation, providing the primary electrical interface between SCE's 115 kV subtransmission system and the Project's medium-voltage distribution network. Power is delivered via two dedicated 115 kV lines on independent line positions supporting redundancy and diverse routing, with associated fiber-optic lines extending to the customer-owned substation. An SCE-owned switchyard adjacent to the customer-owned substation provides the utility-side interface between SCE's 115 kV subtransmission system and the customer substation. Step-down transformers within the customer-owned substation are configured for 2N redundancy. Detailed engineering specifications, MVA ratings, substation dimensions, and equipment configurations are described in Section 2 (*Related Facilities and Transmission Lines*). The substation is located on APN 084-010-48, south of SR-178.

SCE has issued Method of Service Study MOS174 (March 30, 2026) for the Project. The MOS174 documentation is in the possession of the Applicant and has been made available to CEC Staff. MOS174 (March 30, 2026) supersedes any prior SCE service correspondence for this Project. The detailed MOS174 load analysis is addressed in Section 4.18 (*Utilities and Service Systems*). The Project's electrical configuration, one-line diagrams, and Point of Interconnection (POI) information are provided in Appendix L.1 through L.3. Transmission line design, construction, and operation are described in Section 2 of this Application consistent with CEC Appendix B §(b)(2); final transmission line parameters will be confirmed upon completion of final engineering.

1.4.8 Ancillary Solar PV

The Project includes 1 MW of photovoltaic (PV) systems installed on the rooftop of the data center and as parking canopies within the developed campus footprint as an ancillary energy efficiency feature to offset a portion of on-site daytime electrical demand. The PV facilities are not proposed as a utility-scale generation facility and would not export electricity to the grid. PV is included within the Project Description for completeness of SPPE and CEQA review but does not change the primary purpose of the Project. Energy efficiency and ancillary PV are addressed in Section 4.6 (*Energy*).

1.4.9 Waste Management

The Project will generate routine solid waste typical of office and industrial operations during both construction and operation. Standard waste streams will be managed through licensed waste haulers consistent with applicable requirements and recycling/diversion mandates. Construction waste will be managed through contractor waste management practices including recycling and diversion where feasible. Hazardous and universal waste (including batteries, spent oils, and regulated materials) will be managed by licensed transporters to permitted facilities. Waste streams, handling, and disposal are addressed in Section 4.9 (*Hazards and Hazardous Materials*).

1.4.10 Worker Safety

Construction and operational worker safety programs will be implemented consistent with Cal/OSHA requirements and CEC Appendix B §(g)(11). As addressed in Section 4.9 (*Hazards and Hazardous Materials*), draft outlines of the Construction Health and Safety Program and the

Operations Health and Safety Program are provided, including: Injury and Illness Prevention Plan (IIPP) per Cal/OSHA Title 8; Fire Protection and Prevention Plan; Emergency Action Plan; Personal Protective Equipment (PPE) Program; Lockout/Tagout (LOTO) Program; Hazard Communication (HazCom) Program; and confined space procedures. Valley Fever (*Coccidioidomycosis*) dust control and PPE measures are also addressed given the arid Mojave Desert project setting.

1.4.11 Site Grading, Excavation, and Construction

Construction will include site grading for building pads and circulation, installation of underground utilities, and construction of stormwater management features. Based on conceptual design, building foundations are not expected to extend deeper than 10 feet below grade. Utility trenching will generally range from 3 to 10 feet in depth, with localized deeper sections at crossings. The proposed stormwater retention basin is anticipated to represent the deepest excavation on site; final basin geometry will be confirmed during final civil design. Excavation depth information is summarized at the conceptual level in **Table 1-4** below and in Appendix K.1. All earth-disturbing activities will be conducted under the Project SWPPP, consistent with applicable drainage standards, EKAPCD dust control rules, and applicable noise regulations.

Peak construction workforce is anticipated to reach approximately 592 workers during Month 20 of construction, when structural, mechanical, electrical, and interior buildout activities overlap. Average monthly workforce is expected to be approximately 300 workers throughout the 48-month project lifecycle, consistent with the Socioeconomic Analysis (Appendix J.2). Transportation impacts, including vehicle miles traveled (VMT) analysis, are addressed in Section 4.16 (*Transportation*).

Table 1-4. Conceptual Ground Disturbance Summary

Element / Activity	Typical Depth Below Grade	Maximum Depth Below Grade (Conceptual)	Notes
Mass grading / building pads	1–3 feet	5 feet	Final cut/fill balanced as feasible; refined during final grading design
Utility trenching (power/data)	3–5 feet	8 feet	Includes conduits/duct banks; localized deeper sections may occur at crossings
Domestic water lines	4–6 feet	8 feet	Depth varies by frost/cover requirements and utility coordination

Element / Activity	Typical Depth Below Grade	Maximum Depth Below Grade (Conceptual)	Notes
Sanitary sewer lines	6–10 feet	12 feet	Final depth depends on gravity flow requirements and connection point elevations
Fire water lines	4–6 feet	8 feet	Includes looped main; depth varies by design and crossings
Building foundations	5–8 feet	≤ 10 feet	Conceptual design assumption: no foundations deeper than 10 feet below grade
Substation grading / foundations	3–6 feet	10 feet	Includes equipment pads/duct banks as applicable
Stormwater conveyance features	2–4 feet	6 feet	Includes pipes, swales, and inlet/outlet structures
Stormwater retention basin	TBD	Deepest excavation on site (TBD)	Depth and geometry will be finalized to achieve required retention volume; anticipated to be the deepest excavation

1.4.12 Stormwater Controls and Floodplain

The Project site is located within a FEMA-mapped Special Flood Hazard Area (Zone A). The Project's Hydrology Study (Appendix E.1) concludes that maximum modeled on-site flood depths are generally less than 1.0 foot based on the 100-year, 24-hour rainfall design event, and recommends a conservative base flood elevation criterion of 1.0 foot above existing or finished grade to address FEMA Zone A requirements, to be refined during final engineering and permitting. An on-site retention basin with approximately 2.2 acre-feet of retention volume is required to comply with applicable drainage standards. Stormwater management and hydrology are evaluated in Section 4.10 (*Hydrology and Water Quality*) and the Hydrology Study (Appendix E.1).

1.4.13 Site Selection Rationale

The Project Site was selected based on a combination of land use, infrastructure, and operational factors as required by CEC Appendix B §(b)(1)(D), and consistent with the alternatives analysis presented in Section 6 of this Application. Key site selection factors include:

- M-2 PD (Medium Industrial, Precise Development Combined District) zoning compatible with data center and emergency generation uses;
- Confirmed utility service availability from SCE as indicated by the SCE Will Serve and MOS documentation for a 99 MW dedicated interconnection to the existing Inyokern 115 kV Substation;
- Water and wastewater service availability through the Inyokern CSD as indicated by the Will-Serve documentation;
- Access to regional fiber infrastructure via the Digital 395 backbone;
- Proximity to SR-178 and US-395 providing regional transportation access;
- Flat terrain favorable to large-footprint industrial development with manageable grading and earthwork; and
- Absence of prime farmland, Williamson Act contracts, biological resources, and other land use constraints that would significantly impede development.

Alternative sites considered and comparative merits are discussed in Section 6 (Alternatives).

1.5 Related Facilities and Linear Features

Related facilities include the customer-owned substation, Point of Interconnection (POI), and on-site electrical infrastructure located on APN 084-010-48 located south of SR-178 (as further described in Section 1.4.7), and the SCE-owned 115 kV overhead subtransmission lines and associated fiber optic routes constructed by SCE traversing unincorporated Kern County between the existing Inyokern SCE 115 kV Substation and the Project site (as described in Section 2.0). The customer-owned substation, the SCE-owned ring bus substation on the Project site, and the SCE transmission line infrastructure are related facilities as defined under 20 CCR §1934. SCE's related facilities are included within the Project's CEQA project boundary and are subject to environmental review as part of this Application, as described in Section 4.18 (*Utilities and Service Systems*).

The SCE Method of Service Study MOS174 (March 30, 2026) governs all SCE facility design, construction, and operational parameters referenced in this Application. Linear facilities include the two SCE-constructed overhead 115 kV subtransmission line corridors (Route 1, approximately 8,000 linear feet with 34 line structures; Route 2, approximately 4,000 linear feet with 14 line structures) and two SCE-owned utility fiber optic routes (Path A, approximately 3,200 linear feet; Path B, approximately 8,250 linear feet), as well as utility lines for water supply, wastewater, fire

protection, and commercial fiber communications required to construct and operate the Project, as shown on the Site Plan (Appendix A.1) and Supporting Supplemental Maps (Appendix N.2).

The Transmission Lines Description, Design, and Operation required by CEC Appendix B §(b)(2) is provided in Section 2 of this Application and in the Appendix L series (one-line diagrams, POI location, and substation one-line). The Project does not connect to the California Independent System Operator (CAISO)-controlled grid; interconnection is processed directly through SCE as the interconnecting utility under SCE's retail tariff.

Linear facility routes, utility alignments, and the notice area parcel list are provided in Appendix A.1 (Site Plan) and Appendix N.2 Consistent with CEC Appendix B §(a)(1)(E), Appendix N.2 includes the list of Assessor's parcel numbers and owners' names and addresses for all parcels within 500 feet of proposed linear facilities and within 1,000 feet of the proposed powerplant and related facilities, including direct mailing addresses for owners and occupants of contiguous properties.

1.6 SPPE Jurisdiction, Agency Roles, and CEQA Authority

The Commission has exclusive jurisdiction pursuant to Public Resources Code (PRC) §25500 et seq. to certify the construction and operation of thermal power plants above the applicable statutory threshold. The SPPE process under PRC §25541 and 20 CCR §1934 et seq. provides a pathway for the Commission to grant an exemption from its licensing authority for eligible facilities. The Applicant acknowledges the Commission's exclusive authority and confirms that the emergency backup generating facility that is the subject of this Application is the SPPE component.

The emergency backup generators are designed and configured solely to provide resiliency for the RBIDC campus. They operate exclusively as emergency standby equipment, cannot operate independently to deliver power off-site, do not have transmission export capability, and are not proposed as merchant generating or grid-support facilities.

The Commission serves as Lead Agency under CEQA for review of the SPPE component of the Project as described in this Application. Kern County serves as Lead Agency under CEQA for the full Project, inclusive of the data center campus improvements and SCE's off-site electrical infrastructure, which is included within the Project's CEQA project boundary as described in Sections 1.2.2, 1.5, and 4.18 of this Application. The California Public Utilities Commission (CPUC) is a Responsible Agency under CEQA with jurisdiction over SCE's 115 kV subtransmission facilities pursuant to the Public Utilities Code and CPUC General Order 131-E; SCE's licensing pathway for its new facilities is anticipated to proceed through a Permit to Construct exemption under GO 131-E Section III.B.2(e), contingent on this Application's CEQA documentation adequately covering SCE's scope. The CEC retains authority as the permitting agency for the SPPE component. Kern County retains land use decision-making authority over the data center campus improvements and associated site development (including the Conditional Use Permit, Specific Plan Amendment, and Lot Line Adjustment) and serves as a Responsible Agency for those components. This Application provides a complete environmental analysis supporting the Commission's CEQA review of the combined impacts of the data center campus and the

emergency generating facility, consistent with CEQA's requirement that the Lead Agency evaluate the potential effects of the overall project.

1.7 Project Objectives

Consistent with 20 CCR Appendix B and CEQA Guidelines §15124, the following objectives define the purpose and need for the Project and establish the basis for evaluating alternatives in Section 6:

- Develop a hyperscale data center campus capable of meeting increasing regional and national demand for data processing, computational power, and energy supply from projected growth in cloud computing and Artificial Intelligence (AI) applications.
- Achieve greater than 99.982 percent availability at the critical load, consistent with Tier III/IV reliability design criteria, through redundant power, cooling, and communication systems.
- Develop the Project on land zoned and entitled for industrial use, consistent with Kern County land use policy and acceptable to the local jurisdiction.
- Provide reliable emergency backup power capable of sustaining full facility operations for a minimum of 24 to 72 hours during a utility outage, including redundancy sufficient to maintain operations if an individual generator unit fails.
- Utilize commercially proven, permittable backup generation technology that is compatible with campus systems and operational within a reasonable timeframe consistent with market demand.
- Incorporate ancillary on-site photovoltaic solar to offset a portion of daytime electrical demand where feasible, without altering the primary purpose of the Project.
- Minimize environmental effects through Project Design Measures (PDMs) and mitigation measures addressing all applicable CEQA resource areas.

1.8 Discretionary Approvals and Permits

The following discretionary approvals and permits are anticipated to be required for Project implementation, consistent with CEC Appendix B §(i). A complete LORS Compliance Matrix is provided in Appendix N.1.

Table 1-3. Anticipated Discretionary Approvals and Permits (20 CCR Appendix B §(i)(1))

Approval / Permit	Issuing Agency	Status
Small Power Plant Exemption (SPPE) — PRC §25541; 20 CCR §1934 et seq.	California Energy Commission (CEC)	This Application
Conditional Use Permit (CUP) — Kern County Zoning Ord. §19.08.085	Kern County Planning Department	Pending
Lot Line Adjustment No. 28-25 / Parcel Consolidation	Kern County Planning Department	Pending (pre-construction)
Inyokern Specific Plan Amendment (eliminate future 90-ft ROW secondary collector)	Kern County Board of Supervisors	Pending
LAFCo Annexation of the Project into Inyokern CSD	Kern County LAFCo	Pending
Air Permits for generators and regulated stationary sources	Eastern Kern Air Pollution Control District (EKAPCD)	Pending
SCE Interconnection / Substation / Subtransmission Line Approvals	Southern California Edison (SCE)	Will Serve / MOS issued; MOS174 completed March 30, 2026; CPUC GO 131-E PTC exemption pathway pending; ROW acquisition pending SCE Real Properties analysis
SWPPP / Construction General Permit	State Water Resources Control Board (SWRCB)	Pending (pre-construction)
Incidental Take Permit (ITP) — Biological Resources	California Department of Fish and Wildlife (CDFW)	Pending (see Section 4.4)

Approval / Permit	Issuing Agency	Status
Kern County Drainage / Grading Permits	Kern County Public Works	Pending
Building Permits	Kern County Building Department	Pending

1.9 Environmental and Regulatory Setting Summary

Detailed environmental analysis is provided in Section 4 of this Application and the technical appendices.

The following provide a consolidated summary of the environmental setting, project impacts, mitigation measures, and significance findings for the Project, drawing from the detailed environmental analyses presented in Sections 4.1 through 4.20 of this Application. Each technical area addresses existing conditions, direct, indirect, and cumulative impacts, mitigation measures, mitigation effectiveness, and monitoring consistent with CEC Appendix B §(g)(1).

Where specific impact significance determinations are identified below as less-than-significant or otherwise, this reflects the conclusions of the technical analyses incorporated in this Application. Final significance determinations are subject to CEC review.

1.9.1 Aesthetics (Section 4.1)

There are no National Scenic Byways or All-American Roads in the vicinity of the Project Site (FHWA, 2019b). The Pacific Crest Trail (PCT), which is protected under the National Trails System Act of 1968, is located approximately 12.5 miles west of the Project Site and is not directly relevant to the Project's aesthetics analysis. The Project Site is privately owned and is not subject to Bureau of Land Management land use jurisdiction or any identified federal land use plan. As described in Section 1.6, the Project does not connect to the CAISO-controlled grid and is not seeking a CAISO interconnection; the Project interconnects through SCE under SCE's retail tariff.

There are no officially Designated State Scenic Highways within Kern County. The nearest Eligible Scenic Highways are State Route 14, approximately 3.2 miles west of the Project Site, and a portion of Business East Route 58, approximately 43.2 miles south of the Project Site (Caltrans, 2017). Although the Kern County General Plan identifies portions of SR-14, Highway 395, Business East Route 58, and State Route 41 as eligible scenic routes, these routes are not officially designated State Scenic Highways and are therefore not treated as scenic highways for purposes of this analysis.

The Project would comply with applicable Kern County outdoor lighting standards, including Chapter 19.81 of the Kern County Zoning Ordinance, which is intended to minimize excessive

illumination, glare, and night-sky impacts. Construction would generally occur during daytime hours between 7:00 a.m. and 6:00 p.m. If evening or early morning work is required, lighting would be limited to the minimum necessary for safety. During operation, nighttime security lighting would be provided for maintenance and emergency conditions. Lighting would be directed downward, shielded, and designed to avoid spillover onto adjacent properties, roadways, or sensitive receptors.

The Project Site is located approximately 0.3 miles east of the Inyokern Airport's western boundary and within the airport influence area, specifically Compatibility Zone C under the Kern County Airport Land Use Compatibility Plan (ALUCP). The Project would comply with applicable airport compatibility requirements, including FAA Part 77 height-review procedures and the ALUCP's structure-height and glare-related requirements. Under Section 3.3.3 of the ALUCP, structures and other objects within Zone C are generally restricted to a maximum height of 35 feet above ground level.

The Inyokern Specific Plan does not contain aesthetics-specific objectives, policies, or implementation measures directly applicable to the Project. However, the Project would remain subject to applicable County development standards and would incorporate lighting, design, and operational controls to minimize visual effects including compliance with the Kern County Dark Sky Ordinance. Therefore, with compliance with applicable regulatory requirements and implementation of Project design features and mitigation measures, the Project's aesthetics impacts would be less than significant.

1.9.2 Agriculture and Forestry Resources (Section 4.2)

The Project Site is not located within a federally designated agricultural or forestry resource area. The California Department of Conservation's Farmland Mapping and Monitoring Program does not designate the Project Site as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Instead, the Project Site is designated as "Nonagricultural and Natural Vegetation," "Grazing Land," and "Vacant or Disturbed Land" (DOC, 2016). The Project Site is also not subject to a Williamson Act land use contract (DOC, 2013).

In addition, the Project Site is not located within an area designated by the Kern County General Plan for Exclusive Agriculture or Limited Agriculture. Because the Project would not convert designated important farmland, conflict with a Williamson Act contract, or affect designated agricultural or forestry resources, impacts to agriculture and forestry resources would be less than significant.

1.9.3 Air Quality (Section 4.3)

The Project Site is located in northeastern Kern County within the Mojave Desert Air Basin, where the Eastern Kern Air Pollution Control District (EKAPCD) regulates air pollutant emissions. Under the National Ambient Air Quality Standards (NAAQS), the EKAPCD is designated unclassifiable/attainment for carbon monoxide (CO), PM₁₀, PM_{2.5}, and lead; serious nonattainment for the 8-hour ozone standard; attainment for the 1-hour ozone standard; and unclassified for nitrogen oxides (NO_x) and sulfur oxides (SO_x). No federal designation has been

made for hydrogen sulfide (H₂S). Under the California Ambient Air Quality Standards (CAAQS), the EKAPCD is designated nonattainment for the state 1-hour and 8-hour ozone standards and PM₁₀; unclassified for PM_{2.5} and CO; and attainment for NO_x, SO_x, and lead. No state designation has been made for H₂S.

New Source Performance Standards

The Project's emergency diesel generators would be subject to applicable New Source Performance Standards (NSPS), including the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines under 40 C.F.R. Part 60, Subpart IIII. The proposed diesel-fired engines are EPA Tier 2-certified base engines equipped with Johnson Matthey CompactSCRT aftertreatment (SCR + DPF + DEF) to achieve Tier 4 Final-equivalent emission levels at stack and to meet EKAPCD Best Available Control Technology (BACT) requirements.. Because the engines would comply with 40 C.F.R. Part 60 Subpart IIII, they would be exempt from Subpart ZZZZ under 40 C.F.R. §63.6590(c)(1).

EKAPCD Regulation II, Rule 210.1 — New and Modified Stationary Source Review

The Project would also be subject to EKAPCD Regulation II, Rule 210.1, New and Modified Stationary Source Review, for new or modified sources requiring a Permit to Operate. Under Rule 210.1, BACT is determined on a case-by-case basis through a top-down evaluation of available control technologies, with the most effective technically and economically feasible control option selected. For the Project's proposed 4,023-horsepower emergency standby generators, SCR and DPF controls meeting Tier 4 Final standards represent the most stringent emissions-control approach currently achieved in practice for this source category.

Short-Term Air Quality Impacts

Construction of the Project would generate short-term air-quality emissions from construction equipment, worker vehicles, haul trips, and fugitive dust. The Project would comply with EKAPCD Rule 402 and would implement fugitive-dust controls, including watering exposed areas three times per day and limiting vehicle speeds on unpaved roads to less than 15 miles per hour. As modeled in CalEEMod and shown in the AQIA (Appendix F.1), construction emissions would not exceed EKAPCD significance thresholds during any construction year. Therefore, short-term construction-related air-quality impacts would be less than significant.

Long-Term Air Quality Impacts

Operational emissions would result from mobile sources, area sources, emergency generators, cooling towers, and fuel storage. The 40 Caterpillar 3516E 3 MW emergency generators would operate only for emergency backup power and periodic testing and maintenance. The generators are EPA Tier 2-certified base engines equipped with Johnson Matthey CompactSCRT aftertreatment (SCR/DPF/DEF) achieving Tier 4 Final-equivalent emission levels at stack. Cooling-tower emissions would primarily consist of PM₁₀ and PM_{2.5} from drift. Fuel-related VOC emissions would be limited through the use of built-in generator tanks and six proposed 100,000-gallon diesel fuel storage tanks, which would be double-walled with integrated leak detection or placed within secondary containment. The generators would primarily use renewable

diesel when available, with ultra-low sulfur diesel used as an alternative. The Applicant has requested written approval from the Kern County Fire Marshal for the proposed 600,000-gallon aggregate fuel storage capacity under Kern County Code §18.80.030(T). Combined, the generator and secondary fuel tanks will provide sufficient diesel storage to sustain 24 to 72 hours of continuous emergency operation at the data center's full electrical load under worst-case scenario.

As shown in the AQIA (Appendix F.1), operational emissions would not exceed EKAPCD significance thresholds. Project-related vehicle trips would generate mobile-source emissions, but traffic volumes would remain below the applicable transportation thresholds.

Potential Impacts from Carbon Monoxide

A traffic study prepared for the Project concluded that affected intersections and roadway segments would operate at LOS C or better; therefore, CO hotspot modeling was not required, and no localized excessive CO concentrations are expected (Ruettgers, 2026).

Potential Impacts on Sensitive Receptors and Predicted Health Impacts

The Project also evaluated potential impacts to sensitive receptors. The nearest sensitive receptors include Inyokern Elementary School and the Inyokern Senior Center, located approximately 0.23 and 0.24 miles from the Project Site, respectively. The Health Risk Assessment evaluated construction and operational hazardous air pollutant emissions using a 4-year construction exposure period and a 70-year operational exposure period. The modeled carcinogenic risk and chronic and acute non-cancer hazard indices would remain below applicable EKAPCD significance thresholds. Accordingly, health-risk impacts to sensitive receptors would be less than significant.

Visibility, Valley Fever, Asbestos, and Odor

The Project would not result in significant visibility impacts to Class I areas or military/airspace operations because Project PM10 emissions would remain below applicable PSD-related levels. The Project also would not result in significant exposure to Valley Fever spores because construction dust would be controlled through the required fugitive-dust measures. In addition, the Project Site is not located in an area where naturally occurring asbestos is likely to be present (CDCDMG, 2025). The Project is also not expected to generate objectionable odors, and no nearby odor sources have been identified that would adversely affect Project operations.

Impacts to Ambient Air Quality

An ambient air-quality analysis was prepared to evaluate whether the Project could violate or substantially contribute to an existing or projected ambient air-quality standard. Although existing background concentrations for 24-hour PM10, 24-hour PM2.5, and annual PM10 exceed applicable standards, refined modeling shows that Project-related PM10 and PM2.5 concentrations would remain below applicable significance levels. As shown in AQIA **Table 4-12** and **Table 4-13**, maximum construction-related impacts, when combined with background concentrations, would remain below applicable ambient air-quality standards for all criteria pollutants.

Based on the AQIA and the Project's proposed controls, regulatory compliance measures, and mitigation measures, the Project's construction and operational air-quality impacts would be less than significant.

1.9.4 Biological Resources (Section 4.4)

The biological resources analysis is based on the Biological Analysis Report (BAR) prepared for the Project and included as Appendix D.1. The BAR defines the Biological Study Area (BSA) as the Project Site and a surrounding 250-foot buffer where access was feasible (BAR Section 2.1; Figure 2-1).

The Project Site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other regional biological resource conservation plan (BAR Section 5.6). The Project does not overlap with federally designated critical habitat. Although the Project is within the planning areas of the West Mojave Plan and the Desert Renewable Energy Conservation Plan (DRECP), the DRECP applies to BLM-managed lands and therefore does not apply to the privately owned Project Site.

The BAR determined that no sensitive natural communities are present within the Project footprint (BAR Section 5.2). No jurisdictional waters or wetlands were identified within the Project site. One ephemeral drainage feature was observed near the electrical interconnection route; however, the BAR concluded that the Project would avoid this feature and would not impact jurisdictional aquatic resources (BAR Sections 4.1.5 and 5.3; Figures 4-1 and 4-2).

Other key findings in the BAR and as more particularly discussed in Section 4.4 (*Biological Resources*) include:

Special-Status Plant Species: Of the thirteen special-status plant species identified in BAR Table 5-1, three species have the potential to occur on the Project site: Barstow woolly sunflower (*Eriophyllum mohavense*), Charlotte's phacelia (*Phacelia nashiana*) and Latimer's woodland gila (*Saltugilia latimeri*).

Other Protected Plant Species: Silver cholla (*Cylindropuntia echinocarpa*) and beavertail cactus (*Opuntia basilaris*), are plant species protected under the California Desert Native Plants Act (CDNPA) and have potential to be present on the BSA. Five (5) silver cholla individuals were observed on the eastern portion of the Project site (BAR Figure 5-1). Beavertail cactus is not listed on any State or federal lists as threatened or endangered. The removal of individual silver cholla or beavertail cacti would require a California Desert Native Harvest Permit issued by the Kern County Agricultural Commissioner.

Special-Status Animal Species: The literature and database review identified sixteen (16) special-status animal species known or with the potential to occur in the vicinity of the Project (see BAR Appendix A). Five (5) of the sixteen special-status species were determined to be absent from the BSA due to lack of suitable habitat or the BSA being outside of the species range. Eleven (11) of the sixteen special-status species have the potential to occur on-site (see (BAR Sections 5.1.2 and 5.1.3); BAR Table 5-1 are listed below:

- Crotch's Bumble Bee (*Bombus crotchii*) - Status: State Candidate Endangered:
- Desert Tortoise (*Gopherus agassizii*) - Status: Federally Threatened, State Endangered

- Golden Eagle (*Aquila chrysaetos*) - Status: State Fully Protected
- Swainson's Hawk (*Buteo swainsoni*) - Status: State Threatened
- Western Burrowing Owl (*Athene cunicularia ssp. Hypugaea*) - Status: State Candidate Endangered, Species of Special Concern
- Prairie Falcon (*Falco mexicanus*) - Status: State Watch List
- Loggerhead Shrike (*Lanius ludovicianus*) - Status: Species of Special Concern
- Le Conte's Thrasher (*Toxostoma lecontei*) - Status: Candidate Species.

[Note that as of April 2026, Le Conte's Thrasher is considered a Candidate Species for protection under the California Endangered Species Act (CESA) due to rapid population declines and significant habitat loss. With a global population estimated at under 71,000, this desert songbird has lost over half its population in the past 50 years, largely driven by development in Southern California. The BSA, which was prepared prior to the California Fish and Game Commission's revision of status, designated Le Conte's Thrasher as a "Species of Special Concern."]

- American Badger (*Taxidea taxus*) - Status: Species of Special Concern:
- Desert Kit Fox (*Vulpes macrotis arsipus*) - Status: CFGC Protected:
- Mohave Ground Squirrel (*Xerospermophilus mohavensis*) - Status: State Threatened
-

Other Protected Wildlife Species – Nesting Birds: Habitat within the BSA supports nesting native birds that are protected by the federal MBTA and the CFGC. The reconnaissance surveys were conducted outside the nesting bird season (February 1 to September 15). Although the surveys included conducting searches for inactive bird nests, none were found. Bird species may construct nests within the BSA before or even after construction activities begin. Various species of birds will construct nests in a variety of substrates and structures, and nests may become established in trees or shrubs, in manmade structures, and directly on the ground. The BSA supports several types of habitats, substrates, and structures suitable for nesting birds, and there is a high potential that birds will nest within the BSA during the nesting season.

Sensitive Natural Communities: The database and literature review did not identify any sensitive plant communities known to occur or with the potential to occur within the vicinity of the BSA, and none were present during the reconnaissance surveys. The Project does not overlap with any federally designated critical habitat, and there is no identified critical habitat within 10 miles of the BSA.

Jurisdictional Aquatic Resources: Based on the NHD, NWI, and on-site ground confirmation, there are no identified aquatic resources within the Project site. However, one ephemeral water feature is present within the BSA along the edge of the roadway. (Figure 4-1). The proposed Project activities will not impact the existing water feature and, therefore, will not require any additional permitting or consultation. If impacts to the water feature are anticipated, a formal jurisdictional delineation for submittal to State and federal agencies should be conducted, and additional permitting may be required.

Wildlife Movement: Wildlife movement corridors, also referred to as dispersal corridors or landscape linkages, are generally defined as linear features along which animals can travel from one habitat or resource area to another. The Project is situated within the Pacific Flyway, which is a significant

avian migration route that covers a wide swath of land along the western Americas from Patagonia to Alaska.

Nitrogen Deposition Analysis

The Nitrogen Deposition Analysis (Appendix E.2) confirmed Le Conte's Thrasher as observed within the Project site, and identified Mohave Ground Squirrel, Prairie Falcon, American Kestrel, and Western Burrowing Owl as sensitive species observed within the 6-mile study radius. An Incidental Take Permit (ITP) from CDFW is stipulated as a Mitigation Measure. Avoidance, minimization, and mitigation measures are identified in Section 4.4 (Biological Resources) and the BAR, including pre-construction special-status plant surveys (BIO-1) and protocol-level wildlife surveys.

Nitrogen deposition impacts to sensitive habitat and species are evaluated in the Nitrogen Deposition Analysis (Appendix E.2; Yorke Engineering LLC, March 2026, Revision 1), prepared using AERMOD dispersion modeling (version 24142) with five years of meteorological data from Edwards Air Force Base (KEDW station: 2012, 2016, 2017, 2019, 2020), consistent with CEC Appendix B §(g)(13)(B)(ii) and (C)(ii). The CEC significance threshold of 5 kg N/ha/yr was applied. AERMOD modeling results indicate a maximum predicted total nitrogen deposition rate of 1.76 kg/ha/yr (dry: 1.76 kg/ha/yr; wet: 0.0026 kg/ha/yr) for the sensitive species identified within the 6-mile study radius, including Le Conte's Thrasher, Mohave Ground Squirrel, and Desert Tortoise. Background nitrogen deposition at the Project site is less than 3 kg/ha/yr; at the nearest location with elevated background rates (approximately 2 kilometers northeast), background deposition is 3 to 5 kg/ha/yr, and the Project-related contribution at that location is 0.08 kg/ha/yr, for a combined total below the 5 kg/ha/yr CEC threshold. Zero acres of sensitive habitat are negatively impacted. The analysis concludes that nitrogen deposition impacts on sensitive habitat and species in the region are less than significant. Nitrogen deposition isopleth maps and AERMOD modeling parameters are provided in Appendix E.2; electronic AERMOD modeling files will be provided to CEC Staff upon request.

The BAR identifies avoidance and minimization measures to reduce potential biological impacts to less-than-significant levels (BAR Section 6.0). These measures include pre-construction surveys for special-status plants, Crotch's bumble bee, burrowing owl, desert tortoise, American badger, desert kit fox, Mohave ground squirrel, and nesting birds; avoidance of listed plants, burrows, and dens; biological monitoring; worker environmental awareness training; and, where required, incidental take authorization for burrowing owl and Mohave ground squirrel.

The Project Site does not support riparian habitat or other sensitive natural communities and does not overlap with designated critical habitat. One ephemeral water feature is present within the BSA (BAR Figure 4-1), but Project activities would avoid that feature. Although the Project is located within the Pacific Flyway, the Project would be low-lying and is not expected to interfere with avian migratory movement. The Project would not substantially affect wildlife movement corridors. Therefore, with implementation of the BAR's avoidance, minimization, monitoring, training measures, and stated mitigation measures, the Project's impacts to biological resources would be less than significant.

1.9.5 Cultural Resources (Section 4.5)

No buildings, structures, objects, sites, or districts within the Project Site are listed in the National Register of Historic Places under the National Historic Preservation Act of 1966.

The Cultural Resources Report (Appendix B.1) identified six previously recorded resources within the survey area, all of which were relocated and updated during field survey. These resources are historic in age but lack sufficient integrity and are recommended not eligible for listing in the California Register of Historical Resources (CRHR). No new archaeological sites or historic properties were identified within the Project Site, and no human remains, including remains interred outside of formal cemeteries, were discovered.

Based on the local geomorphic setting, mapped soils, and observed disturbance, the Cultural Resources Report concludes that the potential for buried cultural resources and tribal cultural resources is low. Therefore, with implementation of the identified mitigation measures, the Project's impacts to cultural resources would be less than significant.

1.9.6 Energy (Section 4.6)

The Project is designed to achieve a power usage effectiveness (PUE) of approximately 1.41. As described in Section 4.6.9, the Project would incorporate energy-efficiency measures consistent with, and in some instances exceeding, the mandatory nonresidential requirements of the California Building Energy Efficiency Standards, Title 24, Part 6, including HVAC commissioning, lighting controls, and sub-metering requirements.

The Project's energy-efficiency measures are also consistent with data center industry best practices, including guidance from ASHRAE TC 9.9, The Green Grid, and the U.S. EPA ENERGY STAR for Data Centers program. These measures are incorporated throughout the Project's conceptual design to reduce total energy consumption, improve operational efficiency, and minimize environmental impacts.

At full buildout, the facility is estimated to consume approximately 867,240 MWh per year of electricity, based on a 99 MW load operating over 8,760 hours. This energy use is proportionate to the large-scale computing infrastructure served and does not reflect wasteful, inefficient, or unnecessary consumption. On-site fossil fuel combustion would be limited to backup generator testing and emergency operation.

The Project's electrical interconnection consists of two SCE-constructed overhead 115 kV subtransmission lines connecting the existing Inyokern SCE 115 kV Substation to the new customer-owned substation on the Project Site, as described in Section 2 (Related Facilities and Transmission Lines). Based on the Appendix N.2 and J.1 no incompatible land uses have been identified within 0.25 mile of the linear facility corridor. Therefore, with implementation of the Project's energy-efficiency design features and applicable regulatory requirements, the Project would not result in wasteful, inefficient, or unnecessary energy consumption, and energy impacts would be less than significant.

1.9.7 Geology and Soils (Section 4.7)

The Project would be subject to applicable federal, state, and local requirements governing geology, seismic safety, erosion control, stormwater management, and paleontological resources. These requirements include the Clean Water Act's National Pollutant Discharge Elimination System (NPDES) program, the Construction General Permit, the California Building Code, the Alquist-Priolo Earthquake Fault Zoning Act, the Seismic Hazards Mapping Act, Public Resources Code §5097.5, and the Porter-Cologne Water Quality Control Act.

Because the Project would disturb more than one acre, the Applicant would be required to obtain coverage under the Construction General Permit and prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would include best management practices to control erosion, manage stormwater runoff, reduce sediment transport, and prevent construction-related pollutants from leaving the site. These requirements are addressed further in Section 4.10 (*Hydrology and Water Quality*).

The Project would also be designed and constructed in accordance with the California Building Code and applicable seismic-safety requirements. These standards address potential geologic and seismic hazards, including strong ground shaking, liquefaction, landslides, and other ground-failure risks. Where required, site-specific geotechnical investigations would be completed before final design and permitting.

The Project would also comply with PRC §5097.5, which protects paleontological resources and requires appropriate treatment of any resources discovered during construction. In addition, the Lahontan Regional Water Quality Control Board's Basin Plan and the Porter-Cologne Water Quality Control Act provide the regulatory framework for protecting water quality in the Project area.

With compliance with applicable geotechnical, building-code, stormwater, erosion-control, and paleontological-resource requirements, and implementation of the identified mitigation measures, the Project's impacts to geology and soils would be less than significant.

1.9.8 Greenhouse Gas Emissions (Section 4.8)

Project-related greenhouse gas (GHG) emissions would result primarily from construction activities, with smaller operational emissions from maintenance activities, vehicle trips, and limited backup generator testing. As shown in **Table 4.8-2**, construction emissions would represent approximately 83 percent of total Project CO₂e emissions, while operational emissions would represent approximately 17 percent. When annualized over a 35-year Project life, construction-related emissions would equal approximately 16 metric tons (MT) of CO₂e per year, which is well below EKAPCD's 25,000 MT CO₂e per year significance threshold.

The Project includes approximately 1 MW of ancillary rooftop and carport photovoltaic (PV) generation, which would offset a portion of non-IT related, on-site daytime electrical demand. On-site fossil fuel combustion would be limited to emergency operation and periodic testing of backup generators. The Project's construction and operational greenhouse gas emissions were estimated using CalEEMod, EMFAC2021 (v1.0.2), and the California Climate Action Registry General

Reporting Protocol, Version 3.1. The Project would not emit hydrofluorocarbons or perfluorocarbons and would be subject to applicable AB 32 regulations as implemented by CARB. As shown in **Table 4.3-17** (Restating Table 0-1, AQIA), Project emissions would remain below EKAPCD's 25,000 MT CO₂e per year significance threshold. Therefore, the Project's impacts to greenhouse gas emissions, with implementation of stated mitigation measures, would be less than significant.

1.9.9 Hazards and Hazardous Materials (Section 4.9)

The Project would involve the routine transport, use, and storage of hazardous materials during construction, operation, and maintenance. These materials are typical of large data center and industrial facilities and would be managed in accordance with applicable Hazardous Materials Business Plan (HMBP), Spill Prevention, Control, and Countermeasure (SPCC), fire code, hazardous-waste, and waste-management requirements.

The Project's proposed 600,000-gallon aboveground diesel storage inventory would exceed the 1,320-gallon SPCC regulatory threshold and would require preparation and implementation of a professional-engineer-certified SPCC Plan before oil storage operations begin. The Project would also comply with applicable hazardous-waste management requirements under the Hazardous Waste Control Act and Title 26 of the California Code of Regulations.

The Phase I Environmental Site Assessment (BSK Associates G25001225) prepared for the Project identifies three on-site Recognized Environmental Conditions (RECs) and three vicinity RECs (six total), as detailed in Section 4.9 and Appendix J.1. Identified RECs are addressed through the design features and mitigation measures described below.

Project design and mitigation measures would reduce hazards-related risks through secondary containment, UL-2085 double-wall aboveground storage tanks, integrated leak detection, no direct storm-drain outlet, surface drainage to an on-site retention basin, SWPPP best management practices, fire detection and suppression systems, defined emergency access, and coordination with Kern County Fire Station 83. Battery energy storage system thermal-runaway risk would be addressed through NFPA 855 compliance and pre-incident planning. With compliance with applicable hazardous-materials regulations, implementation of the SPCC Plan, and incorporation of the identified design features and mitigation measures, the Project's hazards and hazardous-materials impacts would be less than significant.

1.9.10 Hydrology and Water Quality (Section 4.10)

The Hydrology Study prepared for the Project (Appendix E.1) confirms that the data center, subtransmission lines, and substation would not be located in areas subject to flood accumulation from Little Dixie Wash or existing watercourses. As a result, construction of these Project components would not increase flood heights or velocities and would comply with Appendix F of the Kern County Floodplain Management Ordinance. Project site elements would also comply with the recommended one-foot base flood elevation requirement for FEMA Floodplain Map Zone A.

The Project would include on-site stormwater retention facilities designed in accordance with Kern County standards. With implementation of on-site retention, the Project is not expected to contribute to a cumulatively considerable increase in downstream peak flows, flood risk, or pollutant loading. Hydraulic modeling also indicates that floodwater from Little Dixie Wash would not reach the Project area (See Figure 4-4, Section 4.10, *Hydrology and Water Quality*).

Potential construction-related water-quality pollutants include sediment, fuels, lubricants, and concrete washout. Operational pollutant sources may include vehicle fluids and equipment oils. The Project would implement best management practices consistent with the Construction General Permit and Stormwater Pollution Prevention Plan, including perimeter controls, stabilized construction entrances, sediment basins where required, and spill prevention and response measures.

During construction and operation, fueling and maintenance activities would occur in designated areas with secondary containment and spill kits. Any spills would be promptly contained and cleaned up to prevent discharge to stormwater conveyances or off-site areas. The Applicant would also operate and maintain stormwater conveyance and storage facilities for the life of the Project, including sediment and debris removal, erosion repair, and inspection of outlet structures and spillways. Inspections would occur at least annually and after major storm events, with corrective actions documented. Therefore, with implementation of the Project's stormwater controls, SWPPP best management practices, spill prevention measures, and long-term drainage maintenance, and stated mitigation measures, impacts to hydrology and water quality would be less than significant.

1.9.11 Land Use and Planning (Section 4.11)

This section evaluates whether the Project would physically divide an established community or conflict with an applicable land use plan, policy, or regulation adopted to avoid or mitigate environmental effects.

The main facility would be located north of SR-178, as discussed in Section 4.16 (*Land Use and Planning*), and the associated overhead 115 kV subtransmission line connection would extend to the existing SCE utility interconnection area south of SR-178. Project access would use the existing roadway network, including SR-178, Brown Road, SR-14, and US-395. These roadways already provide regional access to Inyokern, Ridgecrest, China Lake Acres, and the China Lake Naval Air Weapons Station (see Figure T-4). The Project would not require permanent off-site roadway realignment, alter existing circulation patterns, or isolate any portion of an established community. As described in Section 1.6 above, the Project does not connect to the CAISO-controlled grid; interconnection is processed directly through SCE under SCE's retail tariff.

The Project would not interfere with existing bicycle, pedestrian, or transit facilities. The nearest Class III bicycle routes are located along SR-178 between SR-14 and Brown Road and along Brown Road between US-395 and South China Lake Boulevard. Existing pedestrian facilities near the Project Site generally consist of unimproved dirt pathways along paved roads, and the Project would not vacate or alter those facilities. Kern Regional Transit Routes 227 and 230 serve the Inyokern area, with nearby stops along SR-178; the Project would not affect access to existing public transportation.

The Project has been reviewed for consistency with the Kern County General Plan, Inyokern Specific Plan, and applicable County zoning and development standards. The Project has also been evaluated for consistency with the Kern Council of Governments (Kern COG) 2022 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS); a detailed policy-by-policy consistency analysis is provided in Section 4.11 (*Land Use and Planning*) (See **Table 4.11-12**), which evaluates the Project against applicable Kern COG RTP/SCS policies and actions, including those addressing bikeway and pedestrian connectivity, transportation infrastructure efficiency, parking, regional land use planning, air quality attainment, and disadvantaged-community considerations. As analyzed in this Application, the Project would not physically divide an established community and would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, with implementation of applicable design features, regulatory requirements, and mitigation measures, land use and planning impacts would be less than significant.

1.9.12 Mineral Resources (Section 4.12)

The Project Site is undeveloped and located in the community of Inyokern, which does not contain designated mineral resource areas. The nearest County-designated Mineral and Petroleum area, with a minimum parcel size of five acres, is approximately 11 miles southeast of the Project Site (USGS, 2020).

The Project Site is privately owned and is not subject to Bureau of Land Management land use planning requirements. Mineral-resource land use designations for private land are regulated by the State of California and Kern County, not federal land use planning requirements.

The mineral resources analysis is based on California Geological Survey mineral land classification data prepared under the Surface Mining and Reclamation Act (SMARA), including the Mineral Land Classification of Southeastern Kern County, California (OFR 99-15). (See **Table 4.12-01** presented in Section 4.12, *Land Use and Planning*) The Kern County MRZ exhibit prepared for this Application shows that the Project Site vicinity is not mapped within an MRZ-2 area, which identifies mineral resources of demonstrated significance. The Project Site is also not known to contain oil, gas, or geothermal wells (DOC, 2017). (See **Figure 4.12-1**)

The Phase I Environmental Site Assessment (BSK Associates G25001225) identifies the Project vicinity as MRZ-3b (mineral deposits of undetermined significance). MRZ-3b classification does not indicate demonstrated mineral significance and is consistent with the less-than-significant finding in Section 4.12.

A review of California Geological Survey Mine and Mineral Information System records identifies no active permitted surface mines within or immediately adjacent to the Project Site vicinity (CGS, 2024). Based on CGS MMIS records and DOC mineral-resource mapping, no active commercial extraction of sand, gravel, or other mineral resources has been identified in the immediate Project area (CGS, 2024; DOC, 2024). Therefore, the Project would not result in the loss of availability of a known mineral resource or conflict with a mineral-resource recovery site. Impacts to mineral resources would be less than significant.

1.9.13 Noise (Section 4.13)

A Noise Analysis was prepared for the Project and is included as Appendix G.1. Construction noise was evaluated using the Federal Highway Administration Roadway Construction Noise Model (RCNM) and Federal Transit Administration construction noise criteria for residential land uses (FHWA-HEP-05-054; FTA, 2018). Operational noise was calculated using manufacturer-supplied equipment sound levels and standard distance attenuation assumptions, with noise levels evaluated at eight receiver locations (R-1 through R-8). For conservative analysis, the Noise Analysis assumed simultaneous operation of all 40 emergency generators and other outdoor mechanical equipment over a 24-hour period.

**Table 4.13-1: (Restating Appendix G.1, Table V)
Construction Noise Levels by Phase, dBA Leq**

Construction Phase	500 Feet ¹	750 Feet ¹	1,000 Feet ¹
Phase 1 — Site Preparation, Earthwork, and Grading	64	61	58
Phase 2 — Structural Construction, Utilities, and Paving	61	57	55
Phase 3 — Mechanical, Electrical, and Commissioning	60	56	54
FTA Residential Threshold (dBA Leq)	80	80	80
Threshold Exceeded?	No	No	No

Distances measured from the approximate geometric center-point of the overall Project construction area. Source: FHWA RCNM; WJV Acoustics, Inc.

Construction is expected to begin in 2027 and occur over an approximately 48-month period. Construction activities would include three primary phases: site preparation, earthwork, and grading; structural and building shell construction; and mechanical, electrical, and data hall installation, commissioning, and closeout. Construction would generally occur between 7:00 a.m. and 6:00 p.m., Monday through Friday, and would comply with Kern County Code §8.36, which limits construction within 1,000 feet of a residence to 6:00 a.m. to 9:00 p.m. on weekdays and 8:00 a.m. to 9:00 p.m. on weekends.

The Noise Analysis modeled construction noise at distances of 500, 750, and 1,000 feet from the approximate center of the construction area. The nearest residential receptors are approximately 1,000 feet or more from that point. At 1,000 feet, modeled peak construction noise levels range from approximately 54 to 58 dBA Leq, which is well below the applicable FTA residential threshold of 80 dBA Leq (Appendix G.1, Table V).

The Project would implement construction noise best management practices, including limiting work to permitted hours, requiring properly functioning mufflers and sound-control devices, enforcing idling limits consistent with CARB requirements, locating stationary equipment away from sensitive receptors where feasible, using temporary noise barriers if needed, and designating a disturbance coordinator to respond to noise complaints.

Operational noise sources would include emergency generators, cooling towers, chillers, transformers, and other outdoor mechanical equipment. The 40 Caterpillar 3516E 3 MW emergency generators would operate only during utility outages or periodic maintenance and testing. Under the conservative worst-case scenario modeled in the Noise Analysis, operational noise levels would range from 43 to 52 dBA Leq and 49 to 58 dB Ldn at analyzed receiver locations. These levels would not exceed the Kern County exterior noise standard of 65 dB Ldn at off-site noise-sensitive receptors and would not exceed existing ambient noise levels (Appendix G.1, Table VII).

Construction vibration was evaluated using the Caltrans Transportation and Construction Vibration Guidance Manual (April 2020). Based on anticipated equipment, distance attenuation, and the nearest residential receptor distances of approximately 1,000 feet or more, construction vibration levels would remain below applicable Caltrans annoyance and damage thresholds. Project operation would not generate substantial ground borne vibration because emergency generators and mechanical equipment primarily produce airborne noise rather than meaningful ground borne vibration at nearby receptor distances. Therefore, with implementation of Project design features, applicable regulatory requirements, and construction noise best management practices, and the stated mitigation measures, the Project's noise and vibration impacts would be less than significant.

1.9.14 Population and Housing (Section 4.14)

Construction of the Project would occur over approximately 48 months and would require an average on-site workforce of approximately 300 workers, with a peak workforce of approximately 600 workers during peak Month 20 (approximately 592 workers). (See Socioeconomic Analysis, Tables SEJ-1, SEJ-1A, and SEJ-1B.) The Project would generate approximately 14,401 job-months, or about 1,200 job-years, during construction (See Socioeconomic Analysis, Table SEJ-1B). The workforce metrics and relocation estimates are summarized in **Table 4.14-1** below.

Table 4.14-1. Construction Workforce and Population Effect Summary (Planning-Level)

Metric	Value	Source
Average on-site workforce	~300 workers/month	Socioeconomic Analysis, Table SEJ-1B
Peak on-site workforce	~600 workers (Month 20, 592 workers)	Socioeconomic Analysis, Table SEJ-1B
Total job-months (48-month total)	14,401	Socioeconomic Analysis, Table SEJ-1B
Total job-years	~1,200	Socioeconomic Analysis, Table SEJ-1B
Expected household relocation	0 to 2% of peak workforce (~0 to 12 persons)	Socioeconomic Analysis, Section 4.1
Primary labor source	Kern County and regional union labor pools	Socioeconomic Analysis, Section 3.6
Permanent operations workforce	~30 to 60 employees	Socioeconomic Analysis, Section 2.4

Source: Socioeconomic Analysis, Tables SEJ-1, SEJ-1A, SEJ-1B.

The Applicant expects to draw primarily from Kern County and regional union labor pools in Southern and Central California. As a result, construction-related household relocation is expected to be minimal, estimated at approximately 0 to 2 percent of the peak workforce, or approximately zero to 12 persons at peak (See Socioeconomic Analysis, Section 4.1). Non-local specialized workers would be present for limited durations and are expected to use short-term lodging rather than establish permanent households in Inyokern. At the maximum relocation estimate, the temporary population increase would represent less than 1.3 percent of the Inyokern Census Designated Place (CDP) population of approximately 958 persons.

The Project does not include residential development and would not provide excess infrastructure capacity intended to support unrelated off-site growth. Required utility improvements would be Applicant-funded and sized to serve the Project (See Socioeconomic Analysis, Section 6.0).

During operation, the Project would employ approximately 30 to 60 permanent employees, supplemented by contract personnel as needed (See Socioeconomic Analysis, Section 2.4). Given the limited permanent workforce and absence of residential uses, Project operation would not create substantial housing demand or measurable population growth in the Project vicinity.

The Project Site does not contain residential uses or occupied housing (See Socioeconomic Analysis, Section 2.1). Construction and operation would not remove housing, displace residents, or require replacement housing. Therefore, impacts to population and housing would be less than significant.

1.9.15 Public Services (Section 4.15)

This section evaluates whether the Project would increase demand for fire protection, emergency medical services, law enforcement, schools, parks, or other public facilities such that new or physically altered public service facilities would be required.

Fire Protection and Emergency Medical Services

Construction of the Project would occur over approximately 48 months, with an estimated average workforce of approximately 300 workers and a peak workforce of approximately 592 workers. Most construction workers are expected to commute from Kern County and nearby regional labor markets rather than relocate to Inyokern. The Project Site is outside areas identified by CAL FIRE as having substantial or very high fire risk.

The Project would include on-site perimeter access roads around the 50-acre campus for emergency vehicle circulation, a Knox Box rapid-entry system at the secured main gate on SR-178, primary access from SR-178, and secondary emergency access from Brown Road. The facility would be designed in accordance with the California Fire Code and Kern County Fire Code and would include fire protection features such as VESDA smoke detection, clean-agent suppression systems, pre-action and wet-pipe sprinklers, on-site fire pumps, fire water storage tanks, hydrants, and 24/7 security monitoring.

Construction activities could temporarily increase demand for fire protection and emergency medical services due to hot work, fuel use, construction traffic, and worker presence. However, Mitigation Measures MM 4.15-1 and MM 4.15-2 would require implementation of a Fire Safety Plan and Construction Safety Plan consistent with applicable fire-code requirements. MM 4.15-3 would require the Applicant to pay its proportional share of local infrastructure costs required to serve the Project. With these measures, impacts to fire protection and emergency medical services would be less than significant.

Law Enforcement

The Kern County Sheriff's Office (KCSO) provides primary law enforcement services to the Project Site through the Ridgecrest Substation, approximately 15 miles southeast of the Project Site. Construction could temporarily increase law enforcement demand due to worker presence, equipment storage, and potential vandalism or security risks. The Project would include perimeter fencing, controlled access, and security measures to reduce these risks.

During operation, the Project would employ approximately 30 to 60 permanent employees, supplemented by contract personnel. Controlled access, 24/7 security monitoring, perimeter fencing, and CCTV surveillance would limit the need for routine sheriff response. Construction and operational traffic would not be expected to adversely affect KCSO response times or CHP patrol operations. With implementation of MM 4.15-2, including coordination with the KCSO, impacts to law enforcement services would be less than significant.

Schools, Parks, and Other Public Facilities; Recreation

The Project does not include residential uses and would employ a limited permanent workforce of approximately 30 to 60 employees. Therefore, the Project would not generate substantial school enrollment, park use, library use, or demand for other public facilities. The Applicant would pay applicable statutory school facilities fees under Education Code §17620 at the time of building permit issuance. Mitigation Measure MM 4.15-3 would require the Applicant to pay its proportional share of local infrastructure costs required to serve the Project. Because the Project would not require new or physically altered public service facilities, impacts to public services would be less than significant.

1.9.16 Transportation (Section 4.16)

Designated State Scenic Highways

The Project would be served by the existing regional roadway network, including SR-178, SR-14, US-395, and Brown Road. As discussed in Section 4.1 (*Aesthetics*), there are no Designated State Scenic Highways within Kern County. The nearest Eligible Scenic Highways are SR-14, approximately 3.7 miles west of the Project Site, and Business East Route 58, approximately 43.2 miles south of the Project Site (Caltrans, 2017). Therefore, the Project would not result in significant impacts to designated or eligible scenic highway resources.

Non-Motorized Transportation

The Project would not adversely affect non-motorized transportation facilities. Under the 2018 Kern Region Active Transportation Plan and Kern County General Plan Circulation Element, the nearest Class III bicycle facilities are located along SR-178 between SR-14 and Brown Road and along Brown Road between US-395 and South China Lake Boulevard. Pedestrian facilities near the Project Site generally consist of unimproved dirt pathways along paved roadways. The Project would not remove, vacate, or substantially alter existing bicycle or pedestrian facilities.

Public Transportation

The Project would also not interfere with public transportation. Kern Regional Transit Routes 227 and 230 serve the Inyokern area. The nearest Route 227 stop is adjacent to the Project Site along SR-178 between Reeves Avenue and West Graaf Avenue, and the nearest Route 230 stop is approximately 350 feet west of the Project Site at SR-178 and Broadway. No direct regional rail service is available in the Project vicinity.

Kern County Airport Land Use Compatibility Plan

The Project Site is located within Compatibility Zone C of the Kern County Airport Land Use Compatibility Plan for Inyokern Airport, which establishes applicable height, land use compatibility, and safety-zone criteria. The Project would be consistent with Zone C compatibility standards.

Construction

Construction is expected to begin in 2027 and occur over approximately 48 months. During construction, the Project would generate approximately 267 average daily trips, including approximately 40 AM peak-hour trips and 40 PM peak-hour trips. This trip generation would not exceed Kern County's 50-trip peak-hour threshold for requiring a formal level-of-service analysis. Construction of the primary access driveway from SR-178 would require a Caltrans encroachment permit and temporary traffic control measures. The proposed secondary emergency access gate on Brown Road would require coordination with Kern County Public Works.

Operation

During operation, the Project would generate approximately 241 average daily trips, including approximately 23 AM peak-hour trips and 14 PM peak-hour trips, based on Institute of Transportation Engineers Trip Generation, 12th Edition, Code 160 for data centers. Operational traffic would remain below Kern County's 50-trip peak-hour threshold, and roadway level of service is not expected to change.

Traffic Analysis and VMT

SR-178 has an estimated daily capacity of approximately 10,000 vehicles per day. Existing average daily traffic on the SR-178 segment within the study area is approximately 3,300 vehicles per day, resulting in a volume-to-capacity ratio of 0.22. Because this is well below Kern County's 0.80 threshold, the roadway segment currently operates at an acceptable level of service and is expected to continue doing so with Project traffic.

The Project would use the existing circulation system and would not require permanent off-site roadway realignment or intersection reconstruction. Any temporary access work, frontage improvements, driveway improvements, or encroachment work required during final design would be coordinated with Caltrans District 9 and Kern County Public Works.

Because Kern County has not adopted vehicle miles traveled (VMT) guidelines, the VMT analysis was prepared using the Governor's Office of Planning and Research Technical Advisory (OPR TA, 2018). The Project did not meet applicable screening criteria; therefore, a detailed VMT analysis was prepared. Based on Kern COG model data, the regional average VMT is 36.85, and the OPR 15-percent-below-regional threshold is 31.32. The Project VMT is estimated at 27.13, which is approximately 30.37 percent below the regional average and below the applicable threshold.

Therefore, the Project would not result in significant impacts to scenic highway resources, bicycle or pedestrian facilities, public transit, roadway operations, airport land use compatibility, or VMT. With implementation of applicable permit requirements, traffic control measures, stated mitigation measure, and agency coordination, transportation impacts would be less than significant.

1.9.17 Tribal Cultural Resources (Section 4.17)

Phase I fieldwork was conducted on January 8, 2026, using pedestrian transects spaced approximately 15 meters apart. The Phase I report states that six of the seven previously recorded resources intersecting the Project area were relocated and updated; the remaining resource was determined to be outside the Project area and was not investigated further.

The identified resources within the Project area are historic in age, lack integrity, and are recommended not eligible for listing in the California Register of Historical Resources (CRHR). No additional archaeological sites or historic properties were identified during the field survey. The Historical Architectural Report similarly concludes that the built-environment resources evaluated for the Project are not eligible under the CRHR criteria.

Sacred Lands File searches were requested from the Native American Heritage Commission (NAHC) on December 22, 2025, and January 23, 2026. AB 52 tribal consultation has been initiated consistent with PRC §21080.3.1 and §21080.3.2; consultation status and outcomes are addressed in Section 4.17 and the Cultural Resources Report. Therefore, with implementation of the identified mitigation measures, impacts to Tribal Cultural Resources would be less than significant.

1.9.18 Utilities and Service Systems (Section 4.18)

Water Facilities

The Project would connect to existing utility systems through localized extensions and service connections. The Inyokern Community Services District (CSD) has indicated that sufficient water supplies are available to serve the Project's projected demand, subject to the conditions and conservation requirements in its executed Will Serve Letter (April 2, 2026). A water main extension may be required to provide adequate fire flow and domestic pressure, and any extension would be designed and constructed at the Applicant's cost in accordance with CSD standards. If oversizing beyond Project needs is required, the Applicant and CSD would address reimbursement consistent with Section 5.6 of the CSD Will Serve Letter.

Water Supply Operations

The Water Supply Assessment (WSA) prepared for the Project evaluates supply sufficiency based on physical groundwater availability, projected normal-year and dry-year supply and demand conditions under the 2020 IWVGA Groundwater Sustainability Plan and 2025 Periodic Evaluation, and SB 610 requirements (See Appendix E.3). The WSA identifies approximately 26,511 acre-feet per year of projected groundwater extraction in 2040. The Project's maximum estimated water demand is approximately 49.10 acre-feet per year, or 16 million gallons per year, representing approximately 0.185 percent of the projected available annual supply. Therefore,

from a utility service perspective, sufficient water supplies are available to serve the Project. As detailed in Section 4.10 (*Hydrology and Water Quality*), the Project's water demand is governed by the Indian Wells Valley Groundwater Sustainability Plan, and compliance with annual pumping allocations and augmentation fees is required under Mitigation Measures MM 4.10-2 and MM 4.10-3.

As discussed in Section 4.10, *Hydrology and Water Quality*, and Section 4.18, *Utilities and Services*, the Water Supply Assessment (WSA) prepared for the Project (Appendix E.3) concluded: This [The] WSA has provided the data and analysis needed to verify that a sufficient Project water supply is physically available (Section 3.1) and that the Project water supply is in accord with SB 610's normal year/dry-year/multiple-dry year requirements, sufficient (Section 3.2). The maximum water demand for this Project is estimated at 49.10 acre-feet/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. This conclusion is based on the fact that maximum water demand for this Project is estimated at 49.10 acre-feet (16 MG)/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. Compliance with the DWR Guidelines for the Project is included in Appendix C [of the WSA]. It is recommended that the County of Kern conclude that the proposed water supplies for the Project are sufficient to meet the projected Project water demand.

Wastewater Treatment

The CSD has preliminarily determined that existing wastewater treatment capacity is available to serve the Project's projected flows, estimated at approximately 6,670 gallons per day average dry-weather flow, subject to final engineering and applicable connection-fee requirements. Sewer lateral upsizing may be required based on final hydraulic modeling. Cooling tower blowdown would be subject to wastewater characterization and pretreatment review. Construction wastewater would be managed through portable sanitation facilities and disposed of at an approved facility.

Electric Power

Electric service would be provided by Southern California Edison (SCE) through a customer-owned substation interconnecting with SCE's existing Inyokern 115 kV Substation via two SCE-constructed 115 kV overhead subtransmission lines, as described in Section 2 of this Application. The Project would be served by two 60/80/100 MVA step-down transformers, providing 2N utility redundancy. SCE's March 30, 2026 Method of Service Study (MOS174) evaluated a 99 MW load interconnection and found no adverse system impacts or required upgrades to the Inyokern 115 kV transmission system under contingency conditions. Final interconnection design and service requirements would be confirmed through SCE's Method of Service process and applicable utility review.

Natural Gas

Natural gas service feasibility has been evaluated at a screening level by PG&E which indicated that the Project can be served from a nearby transmission main and that the requested load is feasible. Although natural gas service is available and was evaluated, it was not selected as the

primary redundancy approach for the Project. Any limited natural gas service needs would be finalized during utility engineering and provider review; noting, however, that due to earthquake risk the Applicant does not intend to rely on natural gas for IT-critical systems.

Telecommunications

Commercial telecommunications service would be provided by Onward through a redundant, carrier-diverse fiber network with independent north and south routes and access to Digital 395 fiber. The system would include 432 strands in three underground conduits, scalable from 1 to 100 Gbps, with an on-site fiber tie-in. Current engineering documents do not indicate the need for major off-site telecommunications expansion beyond normal connection facilities. SCE will also install two dedicated utility fiber routes for protection and control communications.

Construction

During construction, the Project would install on-site utility infrastructure, including water and wastewater connections, stormwater retention facilities, electrical interconnection facilities, and telecommunications conduit. These improvements would be localized service facilities and would not require major regional utility expansion. During operation, stormwater runoff would be managed on-site through a retention basin designed to meet Kern County requirements.

Solid Waste

Solid waste generated by the Project would be handled by a permitted hauler and disposed of at an approved facility, likely the Ridgecrest Recycling and Sanitary Landfill, located approximately five miles southeast of the Project Site. As of the end of 2023, the landfill had approximately 102.3 million cubic yards of remaining capacity and a cease-operation date of January 1, 2080. The Project would comply with applicable federal, state, and local solid-waste requirements, including AB 341, CALGreen construction-waste diversion requirements, and the California Solid Waste Reuse and Recycling Access Act of 1991. Mitigation Measure MM 4.18-1 would require recycling during construction, operation, and decommissioning.

Because the Project would rely on existing utility systems with localized extensions, would not require major regional utility expansion, and would comply with applicable wastewater, stormwater, energy, telecommunications, and solid-waste requirements, impacts to utility systems would be less than significant with mitigation. The Project's groundwater demand is governed by the Indian Wells Valley Groundwater Sustainability Plan; compliance with GSP allocations and augmentation fees is required under Mitigation Measures MM 4.10-2 and MM 4.10-3 (see Section 4.10).

1.9.19 Environmental Justice (Section 4.19)

The Project Site is not located within a community identified as disadvantaged under CalEnviroScreen 4.0 or SB 535. However, because portions of the Inyokern community may be sensitive to environmental stressors based on the health indicators discussed in Section 4.19.1, the

Project was evaluated for potential disproportionately high and adverse effects on environmental justice populations.

The technical analyses prepared for this Application evaluate relevant construction, operation, and maintenance impact pathways, including air quality, health risk, noise, traffic, public services, utilities, hazardous materials, and water quality. Those analyses conclude that Project-related impacts would remain below applicable significance thresholds with implementation of required regulatory controls, design features, and mitigation measures.

Therefore, the Project would not result in disproportionately high and adverse direct, indirect, or cumulative effects on environmental justice populations and would not conflict with the State's environmental justice goals. Impacts related to environmental justice would be less than significant.

1.9.20 Wildfire (Section 4.20)

The Project area is covered by the Kern County Emergency Operations Plan (EOP), which establishes the County's emergency management framework consistent with the Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS), and the Kern County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), which FEMA approved on April 9, 2021. No Community Wildfire Protection Plan has been adopted for the Indian Wells Valley or Inyokern area.

The Project Site is not located within a State Responsibility Area or Very High Fire Hazard Severity Zone. It is mapped within a Local Responsibility Area, non-Very High Fire Hazard Severity Zone. The Wildfire Assessment identifies the Project Site as flat desert floor with sparse desert scrub and low wildfire risk. Because the site is relatively flat and contains limited vegetation, the potential for slope-driven or wind-driven wildfire originating from the site is low.

The Project would not substantially impair emergency response or evacuation. Construction activities would be managed to maintain emergency access on surrounding roadways, including SR-178 and US-395. Site access and internal circulation would be designed to meet Kern County Fire Department and California Fire Code requirements for emergency vehicle access and would be coordinated with KCFD for consistency with emergency response operations under the EOP.

The Project would connect to electrical, domestic water, and sanitary sewer infrastructure through annexation into the Inyokern Community Services District. Electrical infrastructure would be designed and installed consistent with applicable safety standards to minimize ignition risk. Based on the Project design, site conditions, and fire-protection features described in Section 4.9, the Project would not exacerbate wildfire risk, contribute to the uncontrolled spread of wildfire, or impair the effectiveness of the EOP or MJHMP.

Therefore, with implementation of applicable fire-safety design features, regulatory requirements, and mitigation measures, wildfire impacts would be less than significant.

1.10 Project Design Measures

Project Design Measures (PDMs) are features incorporated into the Project's design to avoid or reduce potential adverse environmental effects during construction and operation. PDMs are distinguished from mitigation measures in that they are included as integral design commitments rather than imposed conditions. PDMs are identified within the applicable environmental technical sections of this Application (Sections 4.1 through 4.20). PDMs incorporated into the Project address the following resource areas:

- Aesthetics: Downward-directed and shielded outdoor lighting; building height ≤ 30 feet at top of rooftop equipment; xeriscape landscaping; building color and material palette consistent with surrounding industrial/desert context.
- Air Quality and GHG Emissions: Emergency generators using Tier 2-certified base engines with Johnson Matthey CompactSCRT (SCR/DPF/DEF) aftertreatment achieving Tier 4 Final-equivalent stack emissions; renewable diesel as preferred fuel when available; CARB-compliant testing and operating hour limits; fugitive dust controls and EKAPCD Rule 402 compliance; 1 MW ancillary rooftop and carport PV; PUE design target of approximately 1.41.
- Biological Resources: Pre-construction protocol-level surveys; worker environmental awareness training; biological monitoring during initial ground disturbance; avoidance of identified burrows, dens, and ephemeral water features; nesting bird buffers; CDFW Incidental Take Permit requirements.
- Cultural and Tribal Cultural Resources: Construction worker cultural awareness training; archaeological monitoring during initial ground-disturbing activities in sensitive locations; established protocols for inadvertent discoveries and human remains; AB 52 tribal consultation.
- Geology, Soils, and Paleontology: Site-specific geotechnical investigation prior to final design; California Building Code seismic compliance; paleontological monitoring protocols consistent with PRC §5097.5.
- Hazards and Hazardous Materials: SPCC Plan for the 600,000-gallon aggregate diesel storage; UL-2085 double-wall ASTs with integrated leak detection; secondary containment for all regulated materials; HMBP; emergency access coordination with KCFD Station 83; NFPA 855-compliant battery energy storage system pre-incident planning.
- Hydrology and Water Quality: Construction General Permit and SWPPP implementation; on-site stormwater retention basin (~2.2 acre-feet) designed to Kern County standards; FEMA Zone A 1-foot freeboard; spill prevention and response measures.
- Noise: Limited construction hours (7 a.m.–6 p.m. M–F); properly maintained mufflers and sound-control devices; CARB idling limits; designated disturbance coordinator; equipment placement away from sensitive receptors where feasible.

- Transportation: Caltrans encroachment permit coordination for SR-178 access; Kern County Public Works coordination for Brown Road secondary access; truck routing plan; construction traffic management plan.
- Utilities and Service Systems: Annexation into Inyokern CSD; potable water service provided by the CSD; minimum 5.0 cycles of concentration on cooling towers; landscape irrigation ≥ 20 percent below MAWA involving approximately 500 GPD/year, and the Project would use recycled water, if available, for landscape irrigation.
- Wildfire: California Fire Code and Kern County Fire Code compliance; Knox Box rapid-entry; perimeter access road; clear zones; coordination with KCFD Station 83 for pre-incident planning and emergency access.
- Worker Safety: Cal/OSHA-compliant Construction Health and Safety Program and Operations Health and Safety Program; IIPP, HazCom, LOTO, PPE, and Confined Space programs; Valley Fever dust control and PPE measures; emergency response coordination.

A consolidated summary of PDMs by resource area is provided within each applicable subsection of Section 4. The Mitigation Monitoring and Reporting Program (MMRP) in Section 5 establishes the implementation, monitoring, and reporting framework for PDMs and mitigation measures.

1.11 Environmental Sustainability Plan and Best Management Practices

As presented in the Environmental Sustainability Plan and Best Management Practices included in this Application as Appendix O.4, the Applicant has undertaken a preliminary scoping of the system designs and related regulations that will form the basis for mitigation, compliance, and reporting requirements of the Project. This includes identification of the industry standards and regulatory frameworks used to identify Best Available Technology (BAT)/Best Available Control Technology (BACT), Best Management Practices (BMPs), energy efficiency ratings, and renewable fuel qualifications for the data center components, and benchmarking the Project to both general (national/international) standards and California-specific requirements. Additionally, the preliminary scoping involves aligning the RESET standards and technology platforms that will be used to ensure compliance with the California Building Codes, data center sustainability and regulatory metrics, and benchmarking performance against global industry frameworks.

The Environmental Sustainability Plan addresses energy efficiency commitments (PUE ≈ 1.41 design target; Title 24 Part 6 compliance; ASHRAE TC 9.9 best practices; ENERGY STAR for Data Centers benchmarking), water efficiency commitments (potable water service provided by the CSD; minimum 5.0 cycles of concentration; water-efficiency measures; ≥ 20 percent below MAWA landscape irrigation) greenhouse gas reduction commitments (renewable diesel as preferred fuel when available; ancillary 1 MW PV; Tier 4 Final-equivalent emergency generation), waste reduction and circular-economy commitments (CALGreen and AB 341 compliance; construction waste diversion targets; equipment reuse and recycling at end-of-life), and reporting and disclosure commitments (annual sustainability reporting consistent with industry frameworks).

1.12 Project Alternatives

An alternatives analysis is provided in Section 6 of this Application consistent with CEC Appendix B §(f)(1) and (f)(2), and PRC §25540.6(b). The alternatives analysis evaluates a range of reasonable alternatives to the Project and its location that would feasibly attain most of the basic Project objectives while avoiding or substantially lessening significant effects of the Project, including the No-Project Alternative. The discussion addresses the Applicant's site selection criteria, alternative sites considered, and the reasons the proposed site was selected. Each alternative is evaluated for its comparative engineering, economic, and environmental merits consistent with Appendix B §(f)(2). The reader is referred to Section 6 of this Application for the complete alternatives analysis.

1.13 Facility Closure Plan

This Facility Closure Plan is provided pursuant to 20 CCR Appendix B §(e)(1), which requires a discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations. Because the Project is at the conceptual design stage, specific demolition means and methods will be refined during detailed engineering and permitting; however, all closure activities will be conducted consistent with applicable laws, ordinances, regulations, and standards (LORS) in effect at the time of closure.

1.13.1 Closure Triggers and Notification

Facility closure would be initiated upon permanent cessation of operations or a decision to decommission the RBIDC. Prior to initiating closure activities, the Owner/Operator will provide advance written notice to applicable agencies and service providers, including the California Energy Commission (CEC), Kern County, EKAPCD, the Kern County Fire Department (KCFD), the Inyokern CSD, Southern California Edison (SCE), and any other agencies with jurisdiction over closure activities, consistent with applicable regulatory requirements.

1.13.2 Closure Activities

Closure will be implemented in sequential phases as follows:

Operational Shutdown and Isolation

Secure and shut down IT equipment, cooling systems, UPS systems, and electrical distribution systems in a controlled sequence. Coordinate with SCE regarding service disconnection and isolation of the customer-owned substation. Implement site safety controls including access control, worker safety protocols, and hazard communication consistent with Cal/OSHA requirements.

Removal of Regulated Materials and Wastes

Remove diesel fuel, DEF, lubricants, coolants, water treatment chemicals, and other regulated materials from on-site storage systems and equipment. Remove and manage UPS and electrical equipment batteries (including lead-acid and lithium-based systems) consistent with applicable

hazardous waste and universal waste requirements under Title 22, CCR. Transport and dispose of all hazardous and universal wastes using licensed transporters and permitted treatment, storage, and disposal facilities (TSDFs).

Demolition and Site Restoration

Demolish aboveground structures and equipment foundations including the data center building, generator equipment and enclosures, cooling towers and chillers, fuel storage tanks, and ancillary structures. Remove or abandon-in-place subsurface utilities in accordance with agency requirements. Remove paved surfaces and restore site drainage patterns as appropriate. Stormwater management features, including the retention basin, will be evaluated at the time of closure and either retained for post-closure drainage compliance or restored consistent with applicable requirements and approved closure plans.

Soil and Groundwater Protection

Evaluate areas of potential concern (including fuel storage areas, generator yards, and chemical storage areas) for evidence of releases to soil or groundwater. If contamination is identified, implement appropriate response actions in coordination with applicable regulatory agencies (e.g., DTSC, Lahontan Regional Water Quality Control Board, or Kern County Environmental Health).

1.13.3 Closure Permitting and Compliance

Closure activities will be conducted in accordance with permits required at the time of closure, including:

- Demolition and grading permits from Kern County, including applicable environmental review.
- Hazardous waste and universal waste management requirements under Title 22, CCR, and applicable federal RCRA requirements.
- EKAPCD requirements for permanent shutdown and surrender or modification of permits for stationary sources.
- KCFD requirements related to fire safety during demolition and material removal.
- Inyokern CSD requirements for termination of water and wastewater service and service connection abandonment.
- SCE coordination for utility-side electrical de-energization, transformer and substation equipment removal where applicable, and easement/right-of-way disposition.

1.13.4 Documentation and Recordkeeping

The Owner/Operator will maintain comprehensive records of closure activities, including material removal and transfer manifests; hazardous and universal waste disposal and recycling

documentation; environmental sampling and cleanup documentation if required; agency correspondence and regulatory notifications; and permit documentation. Closure documentation will be made available to the Commission, Kern County, EKAPCD, and other agencies upon request.

1.13.5 Post-Closure Site Condition

The final post-closure condition will depend on future land use and applicable approvals in effect at the time of closure. If the site is redeveloped, closure activities will be coordinated with future development permitting requirements. If the site is not immediately redeveloped, the Owner/Operator will implement measures to maintain site safety, security, and stability, including secure perimeter fencing as needed, erosion control, stormwater drainage compliance, and vegetation management. The final post-closure site condition will be subject to regulatory confirmation and any applicable monitoring requirements established as conditions of the SPPE or other approvals.

1.14 Appendix B Cross-Reference Table

Table 1-5 provides a comprehensive cross-reference matrix demonstrating where the requirements of 20 CCR Appendix B are addressed within this Application. This cross-reference table is provided consistent with CEC SPPE filing requirements and is intended to facilitate the Commission's data adequacy review.

Table 1-5. CEC Appendix B Compliance Cross-Reference

Appendix B Section	Requirement	Where Addressed in This Application
Section (a) — Executive Summary		
(a)(1) Project Overview		
(a)(1)(A)	General description of site and related facilities, including location, type, size, capacity, fuel characteristics, fuel and water supply routes and facilities, pollution control systems	§1.4; §1.5; Section 2.0
(a)(1)(B)	Identification of location by section, township, range, county, and APN	§1.2
(a)(1)(C)	Description and maps depicting the region, vicinity, and site and its immediate surroundings	§1.2; Appendix A.1

Appendix B Section	Requirement	Where Addressed in This Application
(a)(1)(D)	Full-page color photograph of site prior to construction, and full-page color simulation or rendering of site after construction	§1.2.3; Appendix A.2
(a)(1)(E)	Notice area parcel list and map (parcels within 500 ft of linear facilities; within 1,000 ft of powerplant and related facilities)	Appendix N.2
(a)(2) Project Schedule		
(a)(2)	Proposed dates of initiation and completion of construction, initial start-up, and full-scale operation	§1.3
(a)(3) Project Ownership		
(a)(3)(A)	Owners and operators of site(s) and power plant facilities; description of legal interest	§1.1
(a)(3)(B)	Owners and operators of proposed electric transmission facilities	§1.1; Section 2.0; Appendix M.3
(a)(3)(C)	Description of legal relationship between Applicant and persons/entities specified in (a)(3)(A) and (B)	§1.1
Section (b) — Project Description		
(b)(1) Generation Facility Description, Design, and Operation		
(b)(1)(A)	Maps at 1:24,000 showing dedicated leaseholds, proposed final locations, and layout of power plant and related facilities	§1.2; Appendix A.1
(b)(1)(B)	Scale plan and elevation drawings of power plant and related facilities	§1.4; Appendix A.1
(b)(1)(C)	Detailed description of design, methods of construction (depth of excavations), and operation — power generation, cooling, water supply/treatment, waste handling/control, pollution control, fuel handling,	§§1.4.3 – 1.4.10

Appendix B Section	Requirement	Where Addressed in This Application
	safety, emergency, auxiliary systems, fuel types and use scenarios	
(b)(1)(D)	Description of how site and related facilities were selected; consideration of engineering, geology, environmental, water/waste/fuel, and transmission constraints	§1.4.13; Section 6
(b)(2) Transmission Lines Description, Design, and Operation		
(b)(2)(A)	Maps at 1:24,000 of each proposed transmission line route, showing settled areas, parks, recreational/scenic areas, and existing lines within one mile	§§2.1 and 2.3; Appendix L.2
(b)(2)(B)	Full-page color photograph of representative above-ground section of transmission line route prior to construction, and color photographic simulation after construction	Section 2.0; Appendix A.2
(b)(2)(C)	Detailed description of design, construction, and operation of electric transmission facilities (powerlines, substations, switchyards), including ROW widths and physical/electrical characteristics	§§2.4 and 2.9; Appendix L series; Appendix M.3
(b)(2)(D)	Description of how route and additional transmission facilities were selected	Section 2.0; Section 6
(b)(2)(E)	Completed System Impact Study or signed System Impact Study Agreement and proof of payment with interconnecting utility	Section 2.0; Appendix M.3 (SCE MOS174)
Section (c) — Reserved		
(c)	Section reserved by regulation; no required disclosures	Not Applicable
Section (d) — Information for Projects Which Completed the NOI Process		

Appendix B Section	Requirement	Where Addressed in This Application
(d)(1)–(2)	Studies, analyses, and updates required by Commission's Final Decision on the NOI	Not Applicable — Project is filed under SPPE pathway; no NOI process completed
Section (e) — Facility Closure		
(e)(1)	Discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations	§1.13
Section (f) — Alternatives		
(f)(1)	Discussion of range of reasonable alternatives, including no-project alternative; site selection criteria per PRC §25540.6(b)	§1.12; Section 6
(f)(2)	Evaluation of comparative engineering, economic, and environmental merits of alternatives	Section 6
Section (g) — Environmental Information		
(g)(1)	General Information — for each technical area: existing site conditions; direct, indirect, and cumulative impacts from construction, operation, and maintenance; mitigation measures; effectiveness; monitoring plans; cumulative setting	§1.9; Section 4 (all resource analyses); Appendix N.3 (cumulative analysis)
(g)(2) Cultural Resources and Tribal Cultural Resources		
(g)(2)(A)	Regional ethnology, prehistory, and history summary within five-mile radius	§4.5; Appendix B.1
(g)(2)(B)	Literature search results within one-mile radius (and 0.25-mile of linear facilities)	§4.5; Appendix B.1
(g)(2)(C)	Results of new cultural and tribal cultural resource surveys; technical report; DPR 523 forms; cultural specialist qualifications	§4.5; Appendix B.1; Appendices M.1 and M.2 (confidential)

Appendix B Section	Requirement	Where Addressed in This Application
(g)(2)(D)	NAHC correspondence; Native American consultation correspondence and summaries	§§4.5 and 4.17
(g)(2)(E)	Mitigation measures for known and unknown cultural and tribal cultural resources; educational programs	§§4.5 and 4.17
(g)(3) Land Use		
(g)(3)(A)	Existing land uses, General Plan designations, and zoning at site, within one mile, and 0.25-mile of linear facilities; recent or proposed zone changes; discretionary reviews	§1.9.11; Section 4.11
(g)(3)(B)	Discussion of compatibility with present and expected land uses; conformity with long-range land use plans and policies; identification of land use decisions needed	§1.9.11; Section 4.11
(g)(3)(C)	Legal status of parcel(s); method and timetable for parcel merger or consolidation	§§1.2 and 4.11
(g)(3)(D)	Map and description of agricultural land uses; Important Farmland classification; direct, indirect, and cumulative effects on agricultural land	§1.9.2; Section 4.2; Appendix D.3
(g)(4) Noise		
(g)(4)(A)	Land use map identifying noise-sensitive receptors (residences, hospitals, libraries, schools, places of worship) within potentially impacted area	§4.13; Appendix G.1
(g)(4)(B)	Description of ambient noise levels at representative sites; meteorological conditions during measurement; 25-hour minimum monitoring	§4.13; Appendix G.1
(g)(4)(C)	Description of major noise sources, range of noise levels, tonal and frequency characteristics	§4.13; Appendix G.1

Appendix B Section	Requirement	Where Addressed in This Application
(g)(4)(D)	Estimate of project noise levels at sensitive receptors during construction and operation	§4.13; Appendix G.1
(g)(4)(E)	Estimate of project noise levels within site boundary during construction and operation; worker noise exposure	§4.13; Appendix G.1
(g)(4)(F)	Existing and future audible noise levels from switchyards and overhead transmission lines, calculated at property boundary and ROW edge	§4.13; Appendix G.1 (final calculations pending finalization of design)
(g)(5) Traffic and Transportation		
(g)(5)(A)	Regional transportation setting on topographic maps; major transportation facilities	§4.16
(g)(5)(B)	Compliance with FAA Part 77 if within four miles of airport; thermal plume analysis; ALUCP conformance; FAA Form 7460-1 if applicable	§§1.9.1 and 4.16; Appendix E.4 (Thermal Plume Analysis)
(g)(5)(C)	Vehicle Miles Traveled (VMT) analysis	§1.9.16; Section 4.16; Appendix H.1
(g)(5)(D)	Existing and planned roads, rail, bike trails, airports, bus routes, pipelines, canals serving project vicinity	Section 4.16; Appendix H.1
(g)(5)(E)	Construction and operation impacts on transportation facilities; estimated trip lengths, traffic counts, levels of service	Section 4.16; Appendix H.1
(g)(5)(F)	Project-related hazardous materials transportation — types, quantities, trips, routes, transportation hazards	§4.9; Section 4.16
(g)(6) Visual Resources		
(g)(6)(A)	Description of existing landscape; designated/recognized scenic vistas and resources within 5-mile radius (1-mile of linear); existing nighttime lighting	§1.9.1; Section 4.1; Appendix I.1

Appendix B Section	Requirement	Where Addressed in This Application
(g)(6)(B)	Conformance with city/county General Plan and zoning code re: scenic quality (urbanized area)	Not Applicable — Project is in non-urbanized area
(g)(6)(C)	Key Observation Points (KOPs) for non-urbanized area; KOP photographs and photo-realistic simulations	§1.2.3; Section 4.1; Appendices A.2 and I.1
(g)(6)(D)	Project in landscape — elevation drawings; exterior surface treatments and finishes; architectural treatment; conceptual landscape design plan; outdoor lighting control plan; reflectance description	Section 4.1; Appendix I.1
(g)(6)(E)	Cooling tower visible water vapor plume analysis — fan cell parameters, fogging curves, plume impacts on scenic views	§1.4.4; Section 4.1; Appendix E.4 (Thermal Plume Analysis)
(g)(7) Socioeconomics		
(g)(7)(A)	Description of socioeconomic circumstances — economic characteristics, social characteristics, unemployment, skilled workers, housing, utility and public service capacities	§§1.9.14, 1.9.15, 1.9.18; Sections 4.14, 4.15, 4.18; Appendix J.2
(g)(7)(B)	Discussion of socioeconomic impacts — workforce estimates, population, housing, utility/public service impacts, school fees, payroll, sales/property tax, income/employment effects	§§1.9.14 and 1.9.15; Sections 4.14 and 4.15; Appendix J.2
(g)(7)(B)(xiii)	Impacts to environmental justice populations by technical area; disproportionate effects analysis	§1.9.19; Section 4.19; Appendix J.2
(g)(8) Air Quality		
(g)(8)(A)	Information necessary for APCD Determination of Compliance	Section 4.3; Appendix F.1
(g)(8)(B)	Heating value, chemical characteristics of proposed fuels; stack height, diameter, exhaust velocity, temperature; heat rate; expected capacity factor	Section 4.3; §4.6.5.4; Appendix F.1

Appendix B Section	Requirement	Where Addressed in This Application
(g)(8)(C)	Description of control technologies proposed to limit criteria pollutant emissions	Section 4.3; §4.6.5.3; Appendix F.1
(g)(8)(D)	Cooling system description; estimated cooling tower drift rate; water flow rate; maximum total dissolved solids	§1.4.4; Section 4.3; Appendix F.1
(g)(8)(E)	Emission rates of criteria pollutants and greenhouse gases (CO ₂ , CH ₄ , N ₂ O, SF ₆) from stack, cooling towers, fuel and materials handling, secondary emission sources	§1.9.8; Sections 4.3 and 4.8; Appendix F.1
(g)(8)(F)	Typical operational modes including start-up and shutdown; initial commissioning phase emissions and monitoring	Section 4.3; Appendix F.1
(g)(8)(G)	Three years of ambient criteria pollutant concentrations from CARB-certified monitoring stations	Section 4.3; Appendix F.1
(g)(8)(H)	One year of meteorological data from FAA Class 1 station, project site, or CARB/local-district-approved station	Section 4.3; Appendix F.1
(g)(8)(I)	Air quality modeling analyses — construction, operation, cumulative within 6-mile radius, initial commissioning phase	Section 4.3; Appendix F.1
(g)(8)(J)	Emission offset strategy if proposed — quantity needed and potential offset sources	Section 4.3; Appendix F.1
(g)(8)(K)	Mitigation for criteria pollutants exceeding standards but not subject to offset requirements	Section 4.3; Appendix F.1
(g)(9) Public Health		
(g)(9)(A)	Health risk assessment of hazardous air emissions using HARP and OEHHA-approved values	Section 4.3; Appendix F.1

Appendix B Section	Requirement	Where Addressed in This Application
(g)(9)(B)	HARP HRA input data and output results in electronic and print formats	Section 4.3; Appendix F.1
(g)(9)(C)	Local public health studies for population within six-mile radius (respiratory illnesses, cancers, related diseases)	Section 4.3; Appendix F.1
(g)(9)(D)	Map of sensitive receptors within area exposed to substances identified in (g)(9)(A)	Section 4.3; Appendix F.1
(g)(10) Hazardous Materials Handling		
(g)(10)(A)	List of all hazardous and acutely hazardous materials used or stored on-site (per 22 CCR §66261.20 et seq.); toxicity discussion	§4.9
(g)(10)(B)	Map at 1:24,000 of schools, hospitals, day-care, and long-term health care facilities within potentially affected area	§4.9
(g)(10)(C)	Storage and handling system for each hazardous material on-site	§4.9
(g)(10)(D)	Protocol for modeling potential consequences of accidental releases with off-site impacts	§4.9
(g)(10)(E)	Risk Management Plan (Health and Safety Code §25531 et seq.) discussion	§4.9
(g)(10)(F)	Measures proposed to reduce risk of hazardous materials release	§4.9
(g)(10)(G)	Fire and explosion risks associated with the project	§4.9
(g)(11) Worker Safety		
(g)(11)(A)	Safety training programs required for construction and operation personnel	§4.9

Appendix B Section	Requirement	Where Addressed in This Application
(g)(11)(B)	Complete description of fuel handling system and fire suppression system	§§1.4.4 and 4.9
(g)(11)(C)	Draft outlines of Construction Health and Safety Program and Operation Health and Safety Program (IIPP, fire prevention, emergency action, PPE)	§4.9
(g)(12) Waste Management		
(g)(12)(A)	Phase I Environmental Site Assessment (ASTM E 1527-93 or equivalent), completed within one year of Application filing	§4.9; Appendix J.1
(g)(12)(B)	Description of each waste stream during construction and operation — origin, classification, composition, weight/volume, frequency	§§4.9 and 4.18
(g)(12)(C)	Description of waste disposal sites — name, location, classification, capacity, current intake, closure date, enforcement actions	§§4.9 and 4.18
(g)(12)(D)	Management methods for each waste stream — minimization, storage, re-use, recycling, treatment, contractors	§§4.9 and 4.18
(g)(13) Biological Resources		
(g)(13)(A)	Regional overview and discussion of terrestrial and aquatic biological resources within 10 miles; CNDDDB search; sensitive resource map	§4.4; Appendix D.1
(g)(13)(B)	List of species and habitats observed and potential within 1 mile of site (1,000 ft of linear facilities); detailed maps; nitrogen deposition isopleth; jurisdictional features; GIS data	§4.4; Appendix D.1; Appendix E.2
(g)(13)(C)	Discussion of biological resources at site and related facilities; sensitive species list; nitrogen deposition modeling	§4.4; Appendix D.1; Appendix E.2

Appendix B Section	Requirement	Where Addressed in This Application
(g)(13)(D)	Description and results of all field studies and specialized surveys; CNDDDB records; biologist qualifications; jurisdictional wetland delineation if applicable	§4.4; Appendix D.1
(g)(13)(E)	Impacts discussion — direct, indirect, and cumulative; nitrogen deposition impacts on sensitive species habitats	§4.4; Appendix E.2
(g)(13)(F)	Feasible mitigation measures and evaluation of efficacy; off-site habitat mitigation; educational programs	§4.4
(g)(13)(G)	Compliance and monitoring programs	§4.4
(g)(13)(H)	Preliminary correspondence with state and federal resource agencies (USFWS, NMFS, USACE, CDFW, RWQCB)	§4.4; Appendix D.1
(g)(14) Water Resources		
(g)(14)(A)	Information for required permits — WDR/NPDES, 401 Certification, Industrial Pretreatment, Section 404, Underground Injection Control	§4.10; Appendix E.1
(g)(14)(B)	Detailed hydrologic setting — groundwater bodies, surface water, water inundation/100-year flood zones, flood control facilities, wells within 0.5 mile	§4.10; Appendix E.1
(g)(14)(C)	Water to be used and discharged — sources, characterization, demand, conveyance, will-serve letters, transfers, mass and heat balance, wastewater service	§§4.10 and 4.18; Appendix E.3
(g)(14)(D)	Stormwater drainage — precipitation patterns, drainage facilities and design criteria, runoff calculations, regional/local compliance	§§4.10 and 4.18; Appendix E.1

Appendix B Section	Requirement	Where Addressed in This Application
(g)(14)(E)	Impacts analysis — effects on supply, aquifer drawdown, water quality, wastewater disposal, cumulative impacts and alternative water/cooling, 100-year flood plain	§§4.10 and 4.18; Appendices E.1 and E.3
(g)(15) Soils		
(g)(15)(A)	Map at 1:24,000 and description of soil types and agricultural land uses — depth, texture, permeability, drainage, erosion, land capability class; fill sites; contaminated soils	§4.7; Appendix D.3
(g)(15)(B)	Assessment of effects on soil resources and agricultural land uses — accelerated soil loss; effects of emissions on soil-vegetation systems	§§4.7 and 4.2; Appendix D.3
(g)(16) Paleontologic Resources		
(g)(16)(A)	Identification of physiographic province; geologic setting, formations, and stratigraphy of project area	§4.7
(g)(16)(B)	Sensitivity discussion; presence and significance of known paleontologic localities for each geologic unit at 1:24,000	§4.7
(g)(16)(C)	Summary of local museums, literature searches, and field surveys; surveyor qualifications	§4.7
(g)(16)(D)	Specific location info on known paleontologic resources within one-mile radius (confidential appendix)	§4.7
(g)(16)(E)	Educational programs; mitigation for known and unknown paleontologic resources	§4.7
(g)(17) Geological Hazards and Resources		

Appendix B Section	Requirement	Where Addressed in This Application
(g)(17)(A)	Summary of geology, seismicity, and geologic resources of project site and related facilities including linears	§4.7
(g)(17)(B)	Map at 1:24,000 and description of stratigraphic units, geologic structures, geomorphic features within two miles; analysis of ground rupture, seismic shaking, mass wasting and slope stability, liquefaction, subsidence, tsunami runup, soil expansion or collapse	§4.7
(g)(17)(C)	Map and description of geologic resources of recreational, commercial, or scientific value	§4.12
(g)(18) Transmission System Safety and Nuisance		
(g)(18)(A)	Locations and description of existing switchyards and overhead/underground transmission lines that would be affected by the project	§2.4
(g)(18)(B)	Estimate of existing electric and magnetic fields, future EMF from project, and radio/television interference, calculated at property boundary and ROW edge	§§2.4 and 4.9; Section 3.0 (supplemental EMF calculations to be provided after final design)
(g)(18)(C)	Specific measures to mitigate impacts — reduce radio/TV interference, EMF level reductions	§§2.4 and 4.9
(g)(19) Wildfire		
(g)(19)(A)	Map showing State Responsibility Areas (SRA) per PRC §4102 relative to project	§4.20
(g)(19)(B)	Map showing State Fire Hazard Severity Zones per 14 CCR §1280.01 relative to project	§4.20
(g)(19)(C)	If project is in vicinity of SRA or Very High Fire Hazard Severity Zone — emergency response and evacuation plans, pollutant containment, infrastructure that may exacerbate wildfire risk, downslope/downstream impacts	§4.20

Appendix B Section	Requirement	Where Addressed in This Application
Section (h) — Engineering		
(h)(1) Facility Design		
(h)(1)(A)	Site conditions and investigations used as basis for design criteria — seismic and other geologic hazards, foundation conditions, meteorological/climate, flooding hazards	§1.4; Section 4.7
(h)(1)(B)	Measures to improve adverse site conditions	§1.4; Section 4.7
(h)(1)(C)	Foundation types, design criteria, analytical techniques, loading conditions and combinations for facility structures and major equipment	§1.4; Appendix A.3
(h)(1)(D)	Description of each facility/system — power generation; heat dissipation; cooling water supply; atmospheric emission control; waste disposal; noise abatement; switchyards/transformers; other significant components	§1.4; Section 4.6; Appendix A.3; Appendix L series
(h)(2) Transmission System Design		
(h)(2)(A)	Discussion of need for additional transmission lines and substations; basis for selecting principal points of junction; capability and voltage levels	Section 2.0; Appendix L series; Appendix M.3
(h)(2)(B)	Extent to which proposed transmission facilities have been designed, planned, and routed to meet requirements created by additional generating facilities planned by Applicant or others	Section 2.0; Appendix M.3
(h)(3) Reliability		
(h)(3)(A)	Sources and availability of fuel(s) over estimated service life	§§1.4 and 4.6.5.4
(h)(3)(B)	Anticipated service life and reliability — availability factor, capacity factors, technology feasibility,	Section 4.6

Appendix B Section	Requirement	Where Addressed in This Application
	geologic/flood hazards, special design features (redundancy), maturation period	
(h)(4) Efficiency		
(h)(4)(A)	Heat and mass balance diagrams for design conditions for each mode of operation	§4.6.5.7
(h)(4)(B)	Annual fuel consumption in BTUs for each mode of operation, including hot restarts and cold starts	§4.6.5.3
(h)(4)(C)	Annual net electrical energy produced (MWh) for each mode of operation	§4.6.5.7
(h)(4)(D)	Number of hours plant will be operated in each design condition each year	§4.6.5.3
(h)(4)(E)	Cogeneration efficiency calculations (if applicable)	Not Applicable — Project is not a cogeneration facility
(h)(4)(F)	Discussion of alternative generating technologies and rationale for selection over alternatives	§4.6.5.9; Section 6
Section (i) — Compliance with Laws, Ordinances, Regulations and Standards		
(i)(1)(A)	LORS table identifying laws, regulations, ordinances, standards, plans, leases, and permits applicable to project; conformance discussion with cross-references to Application pages	§1.8; Section 10; Appendix N.1
(i)(1)(B)	Agency table identifying each agency with jurisdiction to issue permits/leases/approvals or enforce identified LORS	Section 10; Appendix N.1
(i)(2)	Agency contacts — name, title, phone, address, email of official contacted within each agency, and contact person for Commission staff	Section 10

Appendix B Section	Requirement	Where Addressed in This Application
(i)(3)	Schedule indicating when permits outside Commission authority will be obtained; steps Applicant has taken or plans to take	§1.8; Section 10

1.15 - Summary Figures and Exhibits

Figure 1-1: Regional Location Map

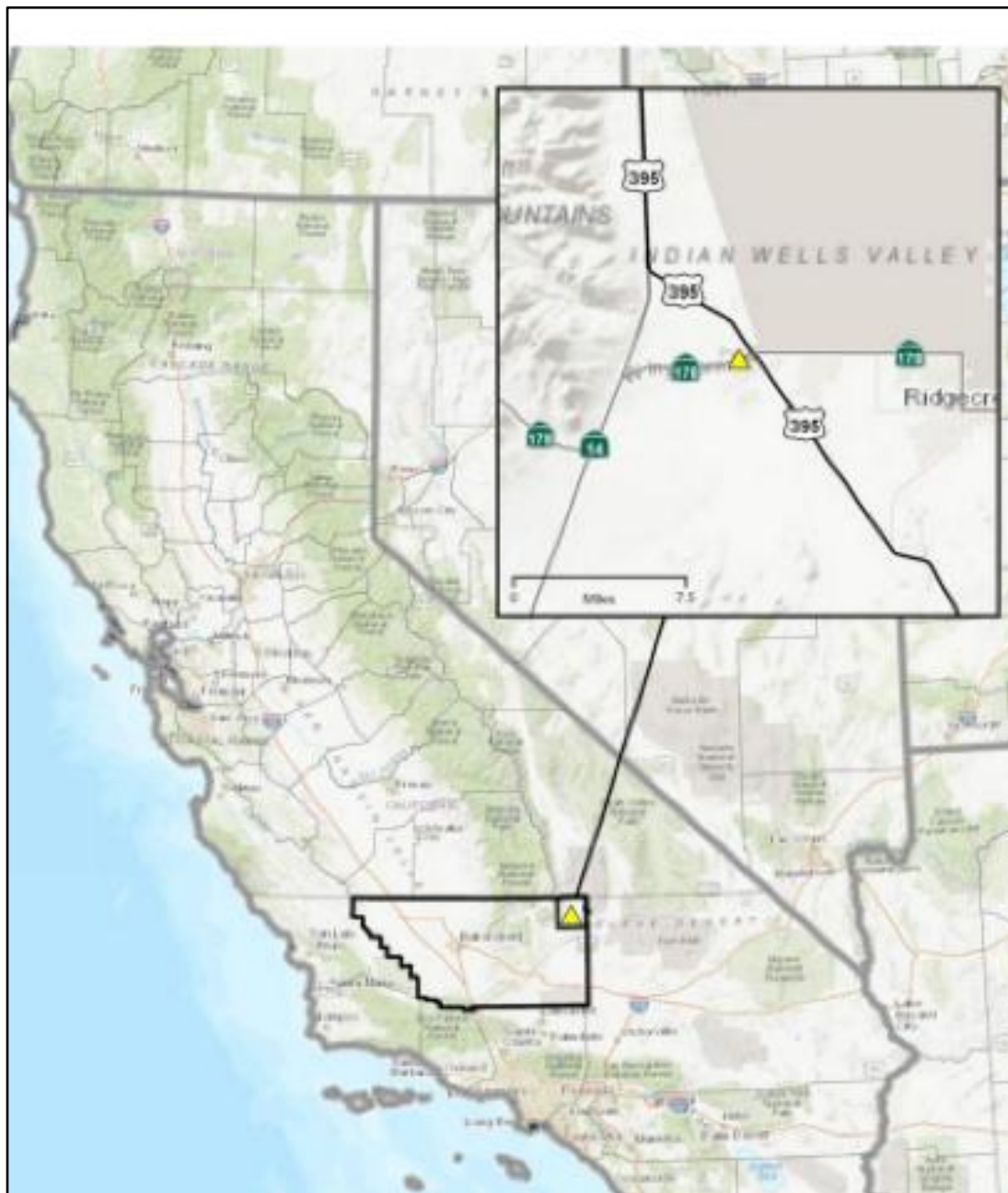


Figure 1-2: Vicinity Map

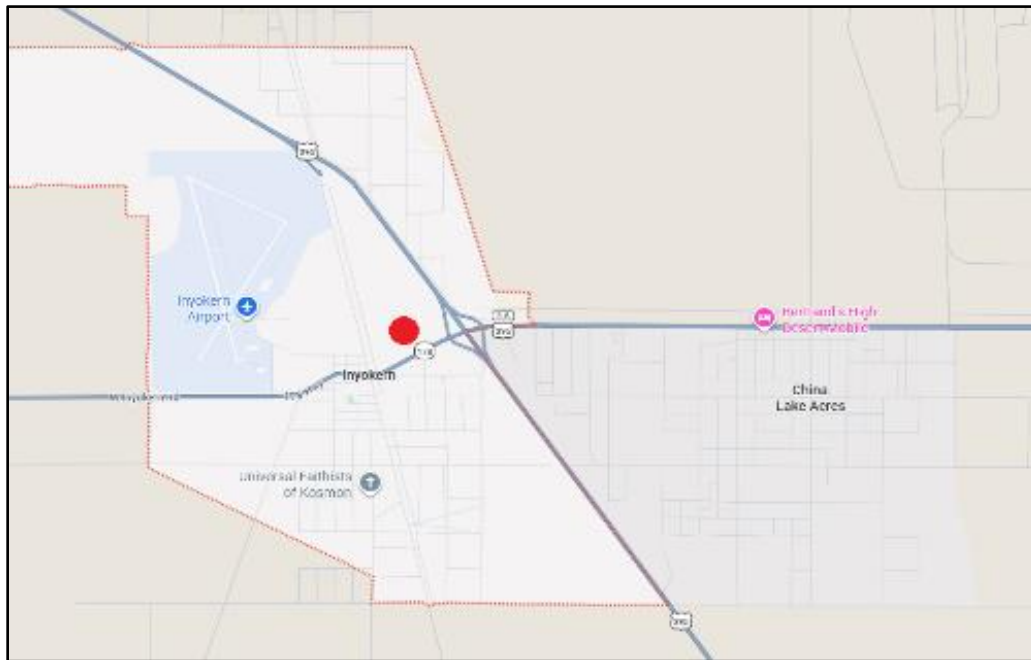


Figure 1-3: Site Plan / Site and Surrounding Parcels Map

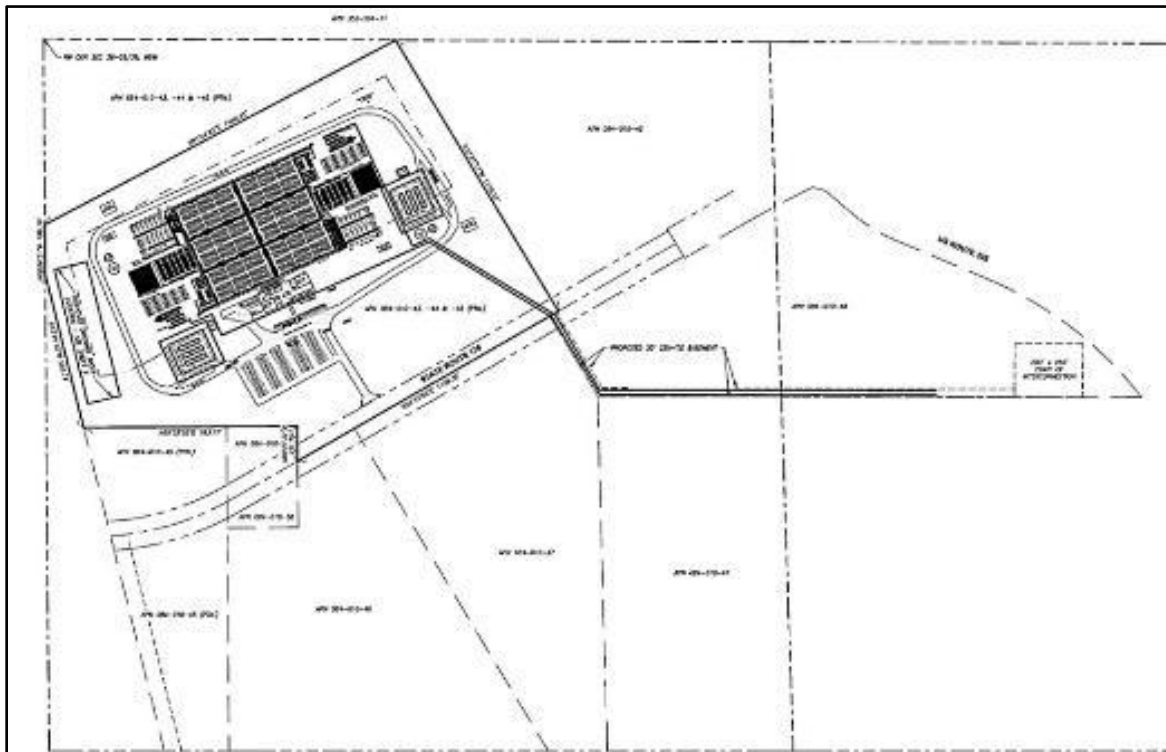
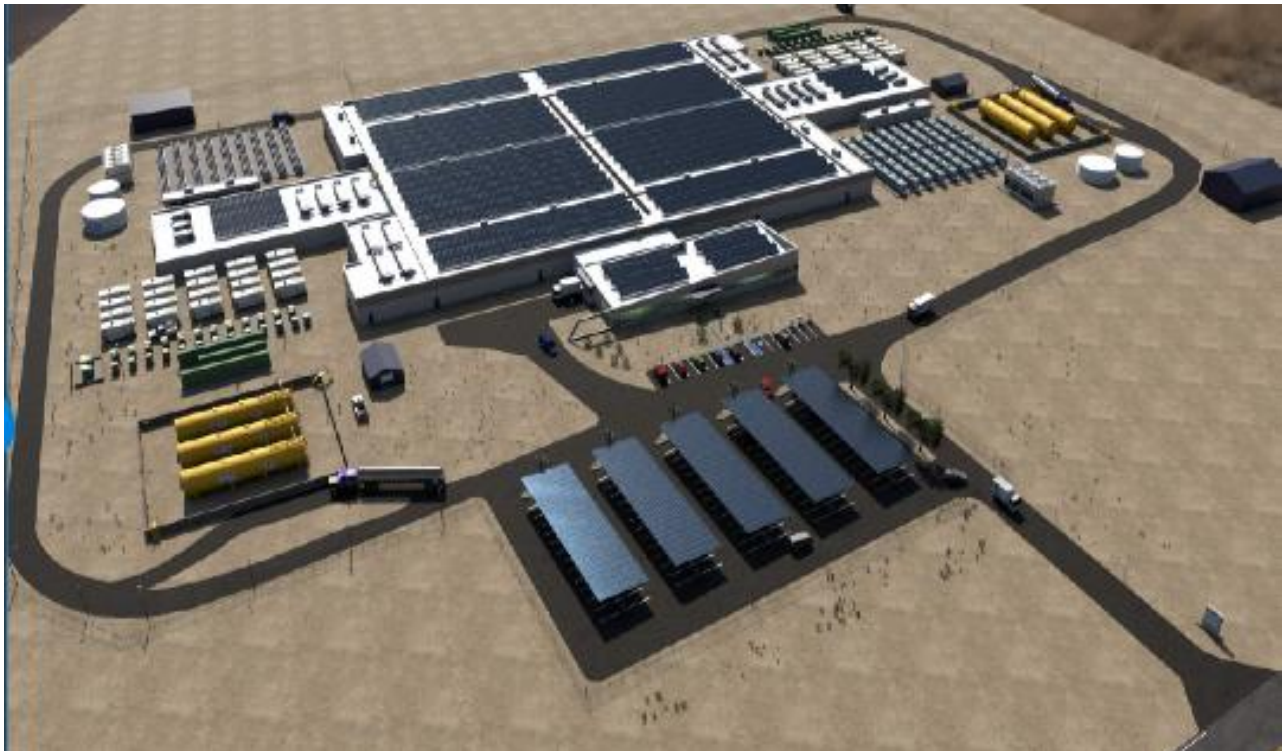


Exhibit ES-1: Existing Conditions Photo (Additional Photos are included in Appendix J.1)



Exhibit ES-2: Post-Construction Simulation / Rendering (a full-page rendering is provided in Appendix A.2)



Compliance Cross-Reference to Applicable Plans, Ordinances, and LORS

Table 1-6 below maps each Project element — along with its associated Mitigation Measure(s) — to compliance with the applicable land-use plans, ordinances, and other LORS. This matrix is organized by Project element and shows which plans, MMs, and verification mechanisms apply to each element.

Table 1-6: Project Element Compliance with Applicable Plans, Ordinances, and LORS

Project Element	Plan / Ordinance / Provision	Compliance Approach	Associated MM(s)	Cross-Reference
1. Site Layout and Land Use Designation				
Overall Site (~83 acres total; ~50-acre main facility parcel)	Kern County General Plan — Land Use Element, Service Industrial 7.2 designation; Policy 3, 4, 12	Site carries Service Industrial (7.2) designation with Flood Hazard (2.5) combining designation. Project reinforces existing industrial character. ~83-acre industrial development is supported by the adopted Inyokern Specific Plan (which satisfies Policy 12's specific-plan requirement for industrial development ≥ 40 acres in rural Kern County).	(N/A — designation-level)	Table 4.11-7
Overall Site	Inyokern Specific Plan — Land Use Designation	Project Site is within the adopted Inyokern Specific Plan (ISP) area. ISP designates the Site for industrial use consistent with M-2 zoning. Specific Plan Amendment (SPA) is being pursued to remove the 90-foot ROW reservation for a secondary collector road that bisects the Site.	(N/A — designation-level)	Table 4.11-8
Overall Site	Kern County Zoning Ordinance (Title 19) — Chapter 19.38 (M-2 Medium Industrial); Chapter 19.56 (PD Combining); Chapter 19.104 (CUP)	Site is zoned M-2 PD (Medium Industrial with Precise Development Combining District). Conditional Use Permit (CUP) required for data center use; CUP is part of Kern County entitlement package. PD overlay implements General Plan Measure H requirement for industrial-	MM 4.6-12	Table 4.11-9

Project Element	Plan / Ordinance / Provision	Compliance Approach	Associated MM(s)	Cross-Reference
		residential interface compatibility.		
Overall Site	Kern County ALUCP — Inyokern Airport (KIYK) Compatibility Zone C	Site is in KIYK Compatibility Zone C per Yorke Thermal Plume Analysis (Appendix E.4) Figure 4-1. Zone C permits industrial use subject to height limits, density, and notification requirements. ALUC Consistency Determination required prior to building permits.	MM 4.16-4	Table 4.11-10; App. E.4
2. Data Center Buildings (3 buildings, 238,000 sf)				
Data Center Buildings (max ~35 ft AGL)	Kern County General Plan — L&G Policy 1; AQ Policy 1	Buildings sited and designed to minimize air quality impacts (BACT-controlled emergency engines under MM 4.6-10) and light/glare (Lighting Plan and Exterior Finishes under MM 4.1-1, MM 4.1-2). Buildings are setback-compliant per M-2 PD requirements.	MM 4.1-1, MM 4.1-2, MM 4.6-10	Table 4.11-7; §4.1, 4.3
Data Center Buildings	Kern County Zoning Ordinance — Chapter 19.38 (M-2 standards — height, setbacks, lot coverage); Chapter 19.56 (PD Combining)	Buildings <35 ft AGL comply with M-2 height standards. Setbacks, lot coverage, and architectural standards meet PD Combining District requirements. Final design reviewed at building permit stage.	MM 4.6-12	Table 4.11-9
Data Center Buildings	Kern County ALUCP — Zone C height limits (≤35 ft AGL preferred without variance)	Buildings <35 ft AGL are Zone C-compliant without variance. Form 7460-1 submitted for any structure or appurtenance requiring FAA Part 77 notice (e.g., construction cranes >200 ft AGL).	MM 4.16-4	Table 4.11-10; App. E.4

Project Element	Plan / Ordinance / Provision	Compliance Approach	Associated MM(s)	Cross-Reference
Data Center Buildings	Kern County Building Code; CALGreen; Title 24 (Building Energy Efficiency); Title 20 (Appliance Efficiency)	Buildings designed and constructed per current Kern County Building Code and CALGreen requirements; Title 24 envelope, lighting, HVAC, and equipment compliance verified at building permit stage.	MM 4.6-6, MM 4.6-7	§4.6.5
3. Backup Generation System (40 × 3 MW Caterpillar 3516E)				
Emergency Backup Generators (Tier 2-certified base + Johnson Matthey CompactSCRT aftertreatment)	EKAPCD Rules; 40 CFR Part 60 Subpart IIII (NSPS); 40 CFR Part 63 Subpart ZZZZ (NESHAP)	Authority to Construct (ATC) issued by EKAPCD prior to engine installation. BACT determination based on Tier 2 base + Johnson Matthey CompactSCRT achieving Tier 4 Final-equivalent stack emissions. Subpart IIII applies; Subpart ZZZZ exemption per §63.6590(c)(1) for engines complying with IIII emission limits.	MM 4.6-10	§4.3; §4.6.5
Emergency Backup Generators	NFPA 110 (Standard for Emergency and Standby Power Systems); NFPA 110 TIA 22-1 (effective May 8, 2024)	Project uses Tier 2 base engines with external aftertreatment specifically to comply with NFPA 110 Level 1 backup reliability requirements; this configuration avoids EPA-mandated inducement shutdowns associated with factory-integrated Tier 4 Final engines (per TIA 22-1).	(Project Design Measure)	§6.4.5
Emergency Backup Generators	Kern County General Plan — AQ Policy 1 (military-operation-compatible emissions)	Air quality impacts analyzed in §4.3 and AQIA (Appendix F.1). Project located in desert region (Indian Wells Valley/Mojave); R-2508 Complex coordination per ALUCP Ch. 4.17 and dust-control coordination with NAWS.	MM 4.3-1, MM 4.3-2, MM 4.3-3	Table 4.11-7; App. F.1

Project Element	Plan / Ordinance / Provision	Compliance Approach	Associated MM(s)	Cross-Reference
4. Diesel Fuel Storage (six 100,000-gallon tanks; 600,000 gal aggregate)				
Diesel Fuel Storage Tanks	40 CFR Part 112 (SPCC); CCR Title 23 §2630 et seq. (UST/AST regulations); Kern County HMBP requirements	Aggregate diesel storage exceeds 1,320-gal SPCC threshold; SPCC Plan required, including secondary containment sized to 110% of largest tank, integrity testing, employee training, and PE certification. AST regulatory compliance under CCR Title 23.	MM 4.9-1, MM 4.9-3, and storage tank permits	§4.9; App. J.1
Diesel Fuel Storage Tanks	Kern County Zoning Ordinance — Chapter 19.38 (M-2 standards for industrial storage)	Tank locations, setbacks, and screening comply with M-2 PD standards. Tanks located within fenced operational footprint with security and emergency access. Final design reviewed at building permit stage.	MM 4.6-12	Table 4.11-9
Diesel Fuel Storage Tanks	Kern County Fire Department — Fire Code (Title 17 / 19); Fire Protection Plan	Fuel storage area complies with applicable fire-code spacing, fire-suppression, and emergency-vehicle access requirements. Fire Protection Plan submitted to Kern County Fire Department prior to grading.	MM 4.20-1	§4.9; §4.20
5. Cooling System (cooling towers, blowdown, makeup water)				
Cooling Towers (visible plume potential)	FAA 14 CFR Part 77; Kern County ALUCP (Inyokern Airport)	Thermal plume analysis (Yorke, Appendix E.4) confirms plume velocity below Verit at all cooling tower stack heights; no FAA Part 77 obstruction triggered. Form 7460-1 submitted for cooling-tower-related vapor plume evaluation per ALUCP and FAA practice.	MM 4.16-4	Table 4.11-10; App. E.4

Project Element	Plan / Ordinance / Provision	Compliance Approach	Associated MM(s)	Cross-Reference
Cooling Tower Makeup Water	Inyokern CSD Will-Serve Letter (executed April 2, 2026); IWVGA Groundwater Sustainability Plan	Water demand of 49.10 acre-feet/year served by Inyokern CSD per executed Will-Serve Letter. Project water demand operates within IWVGA GSP annual allocation and pays applicable augmentation fees.	MM 4.10-2, MM 4.10-3, MM 4.6-11	§4.10; §4.18; App. E.3
Cooling Tower Blowdown	Inyokern CSD Wastewater Service Conditions; RWQCB Industrial Discharge Requirements	Cooling tower blowdown discharged to Inyokern CSD POTW per pretreatment evaluation; Wastewater Characterization Report submitted to CSD prior to operations. RWQCB IGP coverage if any direct discharge to waters of the State.	MM 4.18-4, MM 4.9-4	§4.10; §4.18
6. Switchyard and Transmission Lines				
On-site Switchyard (34.5 kV ring bus); SCE Transmission Line to POI	SCE Method of Service (MOS174) executed; CAISO/SCE System Impact Study; CPUC GO 95 (Rules for Overhead Electric Line Construction); GO 128 (Underground)	Transmission interconnection per SCE-executed MOS174. System Impact Study completed. Switchyard and transmission line construction comply with CPUC GO 95/128 mechanical and electrical clearance standards.	MM 4.18-2, MM 4.6-9	§2.0; App. M.3
Switchyard — EMF and Audible Noise	CEC SPPE Appendix B §(g)(4)(F) (audible noise); §(g)(18) (EMF/EMI/RTV)	Audible noise calculations at property boundary and ROW edge per Appendix G.1 (final calculations after design completion). Supplemental EMF calculations in Section 3.0 updated after final design (per Appendix B §(g)(18)).	Project Design Measures — see matrix Category 7	§4.13; §3.0; App. G.1
Transmission Line ROW	Kern County Zoning Ordinance Chapter 19.56 (PD Combining); ALUCP Zone C	Transmission line within established utility ROW complies with M-2 PD setbacks. Line routing avoids ALUCP height-restricted zones; structures ≤35 ft AGL.	MM 4.6-12, MM 4.16-4	Table 4.11-9; §2.0

Project Element	Plan / Ordinance / Provision	Compliance Approach	Associated MM(s)	Cross-Reference
7. Site Access and Roadways				
Site Access (Brown Road, SR-178)	Kern County General Plan — Circulation Element; Kern COG 2022 RTP/SCS	Project consistent with applicable Kern COG RTP/SCS policies (Table 4.11-12). Construction Traffic Management Plan submitted to Kern County Public Works prior to ground disturbance.	MM 4.16-1, MM 4.16-2, MM 4.16-3	Tables 4.11-12, 13, 14; App. H.1
Construction Vehicle Access (oversized loads)	California Vehicle Code; Caltrans Encroachment Permits; California Highway Patrol coordination	Project proponent obtains required permits for oversized vehicles on public roadways; CHP coordination for hazardous materials transport.	MM 4.16-3, MM 4.9-8	§4.16
Specific Plan Amendment (SPA) — 90-foot ROW Reservation Removal	Inyokern Specific Plan; Kern County General Plan — Circulation Element	ISP currently includes a 90-foot ROW reservation for a secondary collector road bisecting the Site. SPA pursued as part of entitlement package to eliminate the reservation; ISP framework otherwise preserved.	MM 4.6-12	Table 4.11-8; §4.11.1
8. Lighting and Aesthetics				
Outdoor Lighting (security, perimeter, construction)	Kern County Zoning Ordinance — Chapter 19.81 (Outdoor Lighting / Dark Skies); Kern County General Plan — L&G Policy 1; ALUCP glare provisions	Construction and Operations Lighting Plan submitted to Kern County Planning. Compliance demonstrated via photometric analysis; full-cutoff luminaires; 2700–3000K CCT; no uplight; ALUCP glare provisions (R-2508 Airspace Complex; Inyokern Compatibility Zone C).	MM 4.1-1	Tables 4.11-7, 4.11-9; §4.1
Exterior Building Finishes	Kern County General Plan — L&G Policy 1; Kern County Zoning Ordinance Chapter 19.81	Documentation submitted to Kern County Planning confirming non-reflective finishes and neutral earth-tone or low-reflectance colors; no specular finishes, glass curtain	MM 4.1-2	§4.1

Project Element	Plan / Ordinance / Provision	Compliance Approach	Associated MM(s)	Cross-Reference
		walls, or polished metal cladding visible from public roadways.		
9. Stormwater and Drainage				
Stormwater Management	Construction General Permit (CGP) — SWPPP; Kern County Grading Code; RWQCB Lahontan Basin Plan	SWPPP filed with State Water Resources Control Board; construction BMPs per Construction General Permit; pre/post-construction runoff calculations submitted with grading plan.	MM 4.7-3, MM 4.10-1	§4.10; App. E.1
Site within Flood Hazard Area (FEMA SFHA Zone A)	Kern County General Plan — Policy 1, Policy 10, Measure J; Kern County Floodplain Management Ordinance; FEMA flood hazard regulations	Site is in Zone A (SFHA — not primary floodplain). Project subject to Floodplain Management Ordinance compliance and Letter of Map Revision (LOMR) prior to grading; Site grading plan and drainage design address flood hazard.	MM 4.10-1	Tables 4.11-7, 4.11-9
Site Grading and Erosion Control	Kern County Grading Code (Title 17); Kern County Floodplain Management Ordinance	Geotechnical study prepared by California-licensed geotechnical engineer. Grading plan submitted with CUP and building permit applications. Balanced cut/fill design minimizes export.	MM 4.7-1, MM 4.7-2, MM 4.7-4	§4.7
10. Linear Facilities (water, sewer, telecommunications)				
Water Service Connection (Inyokern CSD)	Inyokern CSD Will-Serve Letter; Cortese-Knox-Hertzberg Local Government Reorganization Act (LAFCo annexation)	Will-Serve Letter executed April 2, 2026. CSD service requires LAFCo annexation; Kern County LAFCo annexation application pending. Service infrastructure within established utility corridors.	MM 4.6-11, MM 4.18-2	§4.18; §10

Project Element	Plan / Ordinance / Provision	Compliance Approach	Associated MM(s)	Cross-Reference
Wastewater Service Connection (Inyokern CSD POTW)	Inyokern CSD Wastewater Service Conditions; RWQCB pretreatment requirements	Cooling tower blowdown discharged to CSD POTW after pretreatment evaluation. Wastewater Characterization Report submitted to CSD prior to operations.	MM 4.9-4, MM 4.18-4	§4.18
11. Construction Activities				
Construction Air Quality (Dust, PM10, Equipment Emissions)	EKAPCD Rule 402 (Nuisance), Rule 403 (Fugitive Dust); CARB Statewide Construction Equipment Idling Rule	PM10 dust controls (watering, soil binders, wind fencing, speed limits, track-out prevention) per EKAPCD Rule 403. Construction equipment idling limited per CARB rule.	MM 4.3-1, MM 4.3-2, MM 4.3-3	§4.3
Construction Noise	Kern County Noise Ordinance (Title 8); CEC SPPE Appendix B §(g)(4)	Construction noise BMPs implemented (equipment mufflers, hours of operation per ordinance); construction hours per Kern County Noise Ordinance.	MM 4.13-1	§4.13; App. G.1
Construction Hazardous Materials	California Vehicle Code (HM transport); 49 CFR HMR; California Highway Patrol coordination	Construction hazardous materials transport, storage, and use per HMR and CHP coordination. Construction H&S Plan covers exposure controls.	MM 4.9-6, MM 4.9-8, MM 4.16-3	§4.9; §4.16
Construction Worker Health and Safety	8 CCR §§1509 (IIPP), 1920 (Fire Prevention), 1514–1522 (PPE); Cal-OSHA	Construction Health and Safety Plan per 8 CCR; IIPP, Fire Prevention Plan, PPE Program in place prior to construction.	MM 4.9-6	§4.9
Construction Waste	CALGreen Construction-Waste Diversion (65% minimum); AB 341 Commercial Recycling	Construction waste recycling and diversion per CALGreen requirements; documentation per Kern County Solid Waste Management.	MM 4.18-1, MM 4.18-7	§4.18
12. Annexation and Agency Coordination				

Project Element	Plan / Ordinance / Provision	Compliance Approach	Associated MM(s)	Cross-Reference
Annexation into Inyokern CSD	Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (CKH); Kern County LAFCo procedures	LAFCo annexation application submitted to Kern County LAFCo (Blair Knox, Executive Officer) for inclusion of Project Site within Inyokern CSD service area. Required for water and wastewater service.	MM 4.6-11	§10
Discretionary Approvals (CUP, SPA, LLA)	Kern County Zoning Ordinance Chapter 19.104 (CUP); Kern County General Plan amendment procedures; Subdivision Map Act (LLA)	Conditional Use Permit (CUP) for data center use; Specific Plan Amendment (SPA) to remove 90-ft ROW reservation; Lot Line Adjustment No. 28-25.	MM 4.6-12	§1.8
ALUC Consistency Determination	Public Utilities Code §21670 et seq. (ALUC procedures); Kern County ALUCP	Kern County ALUC Consistency Determination obtained for Inyokern Airport Compatibility Zone C; FAA Form 7460-1 (Notice of Proposed Construction or Alteration) submitted as required.	MM 4.16-4	Table 4.11-10; App. E.4

Notes:

1. Mitigation Measure (MM) references in this matrix correspond to the full text of measures defined in the resource analyses of Sections 4.1 through 4.20. Where multiple MMs are cited, all referenced measures together comprise the mitigation pathway for the listed Project element under the listed plan/ordinance.
2. Project Design Measures (PDMs) are non-mitigation Project commitments that are incorporated into the Project description (e.g., NFPA 110 reliability configuration, ALUCP Zone C height conformance, Tier 4 Final-equivalent emissions). PDMs are not listed in the MM column but are noted parenthetically where applicable.
3. This matrix is intended for use as a navigation tool by CEC Staff, Kern County Planning, EKAPCD, and other reviewing agencies. Detailed compliance demonstrations and supporting analyses are provided in the cross-referenced Application sections.

SECTION 2.0 — RELATED FACILITIES AND TRANSMISSION LINES

This Section provides the Transmission Lines Description, Design, and Operation as required by 20 CCR Appendix B §(b)(2), together with a complete description of the related off-site SCE electrical infrastructure required to serve the Project. The transmission and related facilities described herein are the subject of focused environmental analysis in Section 4.18 (*Utilities and Service Systems*) and supporting analyses in Sections 4.1, 4.4, 4.5, 4.7, 4.10, 4.13, 4.16, 4.17, and 4.20 of this Application.

The Project does not interconnect to the California Independent System Operator (CAISO)-controlled grid and is not seeking, and does not require, a CAISO interconnection. Interconnection is processed directly through Southern California Edison (SCE) as the interconnecting utility under SCE's retail tariff. SCE's licensing pathway for the new 115 kV facilities is anticipated to proceed through a Permit to Construct exemption under California Public Utilities Commission (CPUC) General Order 131-E Section III.B.2(e), contingent on this Application's CEQA documentation adequately covering SCE's scope. SCE Method of Service Study MOS174, dated March 30, 2026, is the governing document for all SCE facility design, construction, and operational parameters referenced in this Application; MOS174 is included in Appendix M.3 of this Application.

The Project's CEQA boundary extends beyond the four on-site APNs to include the related off-site SCE electrical infrastructure required to serve the facility, consisting of: (1) two SCE-constructed 115 kV overhead subtransmission line corridors between the existing Inyokern 115 kV Substation and the new Project substation (Route 1, approximately 8,000 linear feet; Route 2, approximately 4,000 linear feet); (2) a westward expansion of the existing Inyokern 115 kV Substation footprint (approximately 136 feet by 101 feet); and (3) two SCE-owned utility fiber optic routes (Path A, approximately 3,200 linear feet; Path B, approximately 8,250 linear feet). The SCE facilities traverse unincorporated Kern County on parcels not owned by the Applicant. SCE will own and operate the utility-side interconnection facilities consistent with MOS174 and applicable tariff requirements. An APN matrix and land ownership analysis for the SCE corridors will be submitted as a supplement to this Application after SCE finalizes its Real Properties rights analysis under MOS174 (see Section 3.0).

2.1 Electrical Interconnection

The Project's electrical interconnection consists of two SCE-constructed 115 kV overhead subtransmission lines connecting the existing Inyokern 115 kV Substation to the new customer-owned substation on the Project Site.

Route 1 is approximately 8,000 linear feet and would include 34 line structures, 954 kcmil SAC overhead conductor, and overhead ground wire. Route 2 is approximately 4,000 linear feet and would include 14 line structures, 954 kcmil SAC overhead conductor, and overhead ground wire.

Both routes originate at the Inyokern 115 kV Substation, which would be reconfigured into a compact switch rack configuration and extended approximately 136 feet west to accommodate two new outgoing circuit positions. Underground segments may be required at the substation getaway,

estimated at approximately 300 linear feet per route, where the lines transition between the substation and overhead alignments. The final underground and overhead configuration at the substation interface will be confirmed during SCE detailed engineering.

All SCE facility parameters are based on SCE Method of Service Study MOS174 (March 30, 2026), which is the governing document for SCE and utility references in this Application. Preliminary transmission line route alignments are shown on Figure T-4 and Appendix L.2.

2.2 Fiber Optic Interconnection

Commercial fiber service for the data center campus would be provided by Onward through a redundant, carrier-diverse network with independent north and south routes and direct access to the Digital 395 fiber backbone. The Onward system includes 432 strands in three underground conduits, scalable bandwidth from 1 Gbps to 100 Gbps, and approximately 6 ms round-trip time to Los Angeles. The on-site fiber tie-in would directly integrate with the facility's network architecture. Onward's northern route extends to Reno, with interconnections to Lumen, Zayo, Frontier, and AT&T at the Reno-Sparks Industrial Center; its southern route extends to Barstow, with interconnections to Zayo and Lumen and access to Los Angeles data centers and the Las Vegas Switch SUPERNAP facility. Onward issued a Project service confirmation letter dated August 6, 2025.

Separately, SCE will install two dedicated utility fiber optic routes under MOS174 to provide protection and control communications between the existing SCE Inyokern Substation and the Project Point of Interconnection. These SCE utility fiber routes are independent of Onward's commercial fiber network, would use 48-strand single-mode fiber cable, and would follow geographically diverse alignments for redundancy. Path A would extend approximately 3,200 linear feet between the Inyokern Substation and the Project Point of Interconnection. Path B would extend approximately 8,250 linear feet along a geographically diverse route between the same endpoints.

2.3 Transmission Facility Description

2.3.1 Project Point of Interconnection (POI)

The POI would be located adjacent to the Project Site on APN 084-010-48, south of SR-178. The existing SCE Inyokern Substation is located approximately 0.5 mile northeast of the Project Site, north of SR-178 and east of US-395 on APN 352-502-23-1.

The POI would provide the primary electrical interface between SCE's 115 kV subtransmission system and the customer's medium-voltage distribution network, operating at 34.6 kV under SCE MOS174 specifications and nominally classified as 34.5 kV under IEEE/ANSI standards. Power would be delivered from the Inyokern Substation to the customer-owned substation through two dedicated 115 kV subtransmission lines with associated fiber-optic communications.

The POI would include high-voltage switching, isolation, protection, and metering equipment, including circuit breakers, disconnect switches, surge arresters, and metering transformers. These

facilities establish the utility/customer demarcation point, provide overvoltage protection and operational visibility, and support safe switching during normal and contingency conditions.

2.3.2 Power Transformers

The customer-owned substation would step down voltage from 115 kV to 34.6 kV using two 60/80/100 MVA power transformers configured for 2N redundancy. Each transformer would include ONAN/ONAF/ONAF cooling, ± 10 percent load tap changer (LTC) control on independent line positions, and 12.5 percent nominal impedance at the 66 MVA base, allowing voltage regulation and stable operation under varying load and system conditions. Transformer ratings are based on the Project's electrical engineering and are reflected in Appendix L.1 (One-Line Diagram). MOS174 confirms that the customer will own and operate the transformers and feeders; specific MVA ratings are determined by the customer's electrical design.

Transformer protection would be provided by digital relays, including SEL-487B relays, for differential protection, thermal monitoring, and fault isolation. On the medium-voltage side, the transformers would feed a customer-owned 34.6 kV ring bus through interconnected switchgear sections and sectionalizing breakers. The ring bus configuration would allow sections of the bus or switchgear to be taken offline for maintenance while maintaining service continuity.

Line and feeder protection would be provided by SEL digital relays, including SEL-411L relays for line differential protection and SEL-787 relays for feeder and transformer backup protection. Protective zones would be fiber-interconnected to support rapid, coordinated fault clearing. The adjacent SCE-owned ring bus substation constructed as part of the Project would have an approximate footprint of 167 feet 4 inches by 138 feet, consistent with MOS174.

2.3.3 Subtransmission Lines

Two overhead 115 kV subtransmission lines would connect the existing Inyokern 115 kV Substation to the SCE Point of Interconnection and new Project substation. The preliminary alignments are shown on Figure T-4 as planned linear facilities and are not expected to result in significant surface transportation impacts.

The alignments would traverse unincorporated Kern County desert terrain. New right-of-way acquisition is anticipated and will be confirmed through SCE's Real Properties rights analysis during final engineering. Based on preliminary routing, the alignments would not cross or otherwise interact with the existing natural gas distribution pipeline within the SR-178 right-of-way. Electrical interconnection documentation, including the Project one-line, POI location, and substation one-line, is provided in Appendix L.1 through Appendix L.3.

The Project POI and associated subtransmission facilities would provide a resilient, fully protected electrical interface between SCE's 115 kV system and the Project's 34.6 kV medium-voltage distribution system, consistent with applicable utility interconnection standards.

2.4 Design

SCE Method of Service Study MOS174 (March 30, 2026) supports the Project's full 99 MW load capacity and is discussed further in Section 4.18 (Utilities and Service Systems). Because the Project does not interconnect to the CAISO-controlled grid, interconnection is processed directly through SCE as the interconnecting utility under SCE's retail tariff. MOS174 is included in Appendix M.3.

Electrical interference and airspace considerations associated with the substation and overhead transmission lines are addressed in Section 4.16 (Transportation). On-site switchgear and UPS systems would be shielded consistent with applicable NEC and IEEE standards, and no unshielded radiofrequency emissions at aviation navigation-aid frequencies are anticipated. As discussed in Section 4.16 and Appendix E.4 (Thermal Plume Analysis), the Project does not trigger an FAA Form 7460-1 filing requirement at the current design stage.

Transmission system safety and nuisance considerations, including electric and magnetic field (EMF) effects and potential radio or television interference, are addressed in Section 4.9 (Hazards and Hazardous Materials) consistent with CEC Appendix B §(g)(18). EMF calculations at the property boundary and right-of-way edge will be provided as a supplement after final substation and transmission line design is completed (see Section 3.2).

2.5 Construction

Construction of the SCE 115 kV subtransmission facilities, fiber optic routes, and substation expansion will be performed by SCE consistent with MOS174 and applicable SCE construction practices, with timing coordinated with the Project's overall construction schedule (see Section 1.3 and Table 1-2). Anticipated construction activities include foundation installation for line structures, structure assembly and erection, conductor stringing, fiber optic conduit and cable installation, substation grading and equipment installation, and energization commissioning.

Construction within new SCE rights-of-way will involve typical overhead transmission line construction methods, including the use of pickup trucks, line trucks, cranes, augers, and other standard transmission construction equipment. Helicopter use is not anticipated based on preliminary engineering. Construction-phase environmental controls, including dust suppression, biological monitoring (where required), cultural monitoring (where required), and stormwater BMPs, will be implemented consistent with the Project's overall environmental compliance framework as described in Sections 4.3, 4.4, 4.5, 4.10, and 4.13.

Construction-related transportation impacts of SCE facility construction are addressed in Section 4.16 (Transportation).

2.6 Potential SCE Offsite Upgrades

MOS174 evaluated the 99 MW interconnection under contingency conditions and identified no adverse system impacts or required upgrades to the SCE Inyokern 115 kV transmission system beyond the new dedicated facilities described in this Section 2.0 (i.e., the two 115 kV

subtransmission lines, the Inyokern Substation expansion, and the on-site SCE ring bus substation). Final interconnection design and any incidental SCE-side upgrades will be confirmed through SCE's Method of Service process and applicable utility review during final engineering.

To the extent any SCE-side system upgrades beyond those identified in MOS174 are subsequently required to support the Project's 99 MW interconnection, those upgrades would be addressed through SCE's standard interconnection and CPUC processes, and any additional environmental review would be addressed at that time. The current scope of this Application is consistent with the engineering scope identified in MOS174.

2.7 Transmission Site Selection Rationale

Consistent with CEC Appendix B §(b)(2)(B), the transmission corridors and POI location were selected based on the following factors:

- Proximity to the existing SCE Inyokern 115 kV Substation, the closest available interconnection point with sufficient capacity for the Project's 99 MW load.
- Use of overhead transmission line construction within accessible corridors generally co-located with existing roadway and utility infrastructure to the extent feasible, minimizing new ground disturbance and supporting maintenance access.
- Avoidance of mapped sensitive biological resources, designated critical habitat, and known cultural resources to the maximum extent practicable.
- Routing through industrial-zoned and undeveloped private lands rather than through occupied residential areas.
- Consistency with SCE's standard substation and subtransmission design practices, supporting compatibility with SCE's long-term system planning.

2.8 Method of Service Study (MOS174)

SCE issued Method of Service Study MOS174 on March 30, 2026, governing the technical, design, and engineering parameters for the Project's 99 MW interconnection. MOS174 supersedes any prior SCE service correspondence for this Project. Key MOS174 parameters reflected in this Application include:

- Two SCE-constructed 115 kV overhead subtransmission lines (Route 1: 8,000 LF / 34 structures; Route 2: 4,000 LF / 14 structures; 954 kcmil SAC conductor).
- Two customer-owned 60/80/100 MVA step-down transformers (115 kV to 34.6 kV) with ± 10 percent LTC control.
- New SCE-owned ring bus substation on the Project site (approximate footprint: 167 ft 4 in by 138 ft).

- Inyokern Substation westward expansion (approximate footprint: 136 ft by 101 ft) to accommodate two new outgoing circuit positions.
- Two SCE-owned utility fiber optic routes (Path A: 3,200 LF; Path B: 8,250 LF; 48-strand single-mode fiber).
- No adverse system impacts or required upgrades to the Inyokern 115 kV transmission system under contingency conditions for the 99 MW interconnection.

MOS174 is provided in Appendix M.3.

2.9 CEC Appendix B §(b)(2)(B) Compliance Statement

This Section 2.0 demonstrates compliance with CEC Appendix B §(b)(2) for the Project's related transmission facilities at the level of detail appropriate for the conceptual design stage and SCE's standard interconnection process:

- The transmission line route description, Point of Interconnection, and overall configuration are described in §2.1, §2.2, and §2.3 and depicted in Figure T-4 and Appendix L.2.
- Transmission line design parameters and engineering basis, including conductor size, structure count, voltage, redundancy configuration, transformer ratings, and protection scheme, are described in §2.3 and §2.4 and supported by SCE MOS174 (Appendix M.3).
- Transmission construction approach is described in §2.5.
- Site selection rationale for the transmission corridors and POI is provided in §2.7.
- Transmission-related environmental analyses are provided in Sections 4.1, 4.4, 4.5, 4.7, 4.10, 4.13, 4.16, 4.17, 4.18, and 4.20 of this Application.

Final transmission engineering details, including final conductor sizing, structure spotting, foundation design, EMF calculations at the right-of-way edge, and the complete APN matrix and land ownership analysis for the SCE corridors, will be provided as supplements to this Application following completion of SCE detailed engineering and SCE's Real Properties rights analysis under MOS174 (see Section 3.0). Any updates required to address those engineering details will be filed with the Commission Docket Office and presented for the Commission's review consistent with applicable Commission practice and direction.

SECTION 3.0 — PENDING PROJECT ELEMENTS

This Section identifies Project elements that are outstanding as of the date of this Application and provides Commission Staff with a consolidated reference to the status of each pending item. All items identified below are either: (1) mitigation measures, (2) committed supplements that will be filed with the Commission upon receipt or completion; (3) elements dependent on final engineering that is ongoing concurrent with this Application; or (4) administrative confirmations that will be resolved prior to or concurrent with the data adequacy determination. None of the items identified in this Section affect the substantive environmental analysis or the findings of less-than-significant impact presented in Sections 4.1 through 4.20 of this Application.

Table 3-1 below maps each previously “outstanding” or “pending” Project element to the specific Mitigation Measure(s) that resolve it. The intent is to demonstrate that items not yet final at the time of CEC filing have a clear mitigation requirements and verification mechanisms, and therefore can be considered “addressed” for purposes of CEQA significance findings and CEC SPPE data adequacy review.

Table 3-1: Pending / Outstanding Item Cross-Walk to Mitigation Measures

Outstanding / Pending Item	Resolution MM(s)	What the MM Requires	Timing / Verification
1. Pre-Construction Plans, Permits, and Reports			
Outdoor Lighting and Dark-Sky Compliance Plan (final fixture cut sheets, photometric analysis)	MM 4.1-1	Construction and Operations Lighting Plan submitted to Kern County Planning for review and approval; demonstrates compliance with Kern County Dark Skies Ordinance (Ch. 19.81), ALUCP glare provisions, R-2508 Airspace Complex; includes photometric analysis, full-cutoff luminaire cut sheets, no uplight fixtures.	Prior to grading and building permits
Exterior Building and Equipment Finishes Documentation	MM 4.1-2	Documentation submitted to Kern County Planning confirming non-reflective finishes and neutral earth-tone or low-reflectance colors; no specular finishes, glass curtain walls, or polished metal cladding visible from public roadways.	Prior to building permits
Geotechnical Investigation and Soil Conditions Report	MM 4.7-1, MM 4.7-2	Geotechnical study by California-licensed registered geotechnical engineer evaluating soil conditions and geologic hazards; design	Prior to grading permits

Outstanding / Pending Item	Resolution MM(s)	What the MM Requires	Timing / Verification
		recommendations incorporated into final engineering.	
Stormwater Pollution Prevention Plan (SWPPP)	MM 4.7-3	Construction contractor incorporates BMPs consistent with the NPDES Construction General Permit; SWPPP filed with the State Water Resources Control Board.	Prior to ground disturbance
Erosion and Grading Control	MM 4.7-4	Compliance with Kern County Grading Code; balanced cut/fill design to minimize export; vegetation preservation where feasible.	During construction
Construction Traffic Management Plan (CTMP)	MM 4.16-1, MM 4.16-2	CTMP submitted to Kern County Public Works; identifies haul routes, oversized vehicle handling, intersection traffic controls, peak-hour avoidance, public notification.	Prior to ground disturbance
Construction Health and Safety Plan / Operations Health and Safety Plan (OHSP)	MM 4.9-6	Construction H&S Plan and OHSP per 8 CCR §§1509, 1920, 3203, 3220, 3221; covers IIPP, Fire Prevention, Emergency Action, PPE for construction and operations workforce.	Prior to construction; updated for operations
Hazardous Materials Business Plan (HMBP)	MM 4.9-1, MM 4.16-5	HMBP filed via CERS through Kern County Environmental Health Services (CUPA-HMBP); inventory, storage, emergency response, employee training; updated annually and within 30 days of inventory changes.	Prior to operations; ongoing
Hazardous Materials Inventory Management Plan	MM 4.9-3	Documents inventory limits, storage methods (secondary containment, segregation), labeling, recordkeeping, and waste minimization for all hazardous and acutely hazardous materials.	Prior to operations; ongoing

Outstanding / Pending Item	Resolution MM(s)	What the MM Requires	Timing / Verification
Spill Prevention, Control, and Countermeasure (SPCC) Plan	MM 4.9-3	SPCC Plan per 40 CFR Part 112 covering aggregate diesel storage of 600,000 gallons (six 100,000-gallon tanks). Secondary containment sized to 110% of largest tank, periodic integrity testing, employee training, written inspection records, and certification by a registered Professional Engineer. Plan retained on-site and made available to U.S. EPA / RWQCB on request. Threshold check: 1,320 gallons aggregate; Project is well above threshold and SPCC is mandatory.	Condition for state and County permits; Prior to first oil receipt at Project Site
Risk Management Plan (RMP) Determination — 40 CFR Part 68 / Cal-ARP	Applicable if any RMP-listed substance approaches threshold	Verification that the Project does not store any RMP-regulated substance at or above the threshold quantity specified in 40 CFR §68.130 or 19 CCR §2770.5. Project's diesel fuel is not RMP-listed. If any RMP-regulated substance (e.g., aqueous ammonia for SCR DEF, refrigerants) is stored at threshold quantity, applicable RMP / CalARP Plan submitted to U.S. EPA Region 9 and Kern County CUPA prior to operations.	Prior to operations (verification)
Inyokern CSD Wastewater Characterization Report	MM 4.9-4	Pre-discharge characterization of cooling tower blowdown and other wastewater streams submitted to CSD; pretreatment requirements established prior to permanent discharge connection.	Prior to operations
Inyokern CSD Conditions of Service	MM 4.9-5	Compliance with CSD conditions of service including connection fees, infrastructure cost-share, and operational reporting consistent with executed Will-Serve Letter dated April 2, 2026.	Prior to operations

Outstanding / Pending Item	Resolution MM(s)	What the MM Requires	Timing / Verification
Fire Protection Plan (FPP)	MM 4.20-1	FPP submitted to Kern County Fire Department; covers fire suppression systems, water supply for firefighting, emergency vehicle access, fuel-storage protection, and SRA/FHSZ-specific provisions.	Prior to grading permits
Hot Work Permit Controls during Construction	MM 4.20-2	Hot work permit controls incorporated into Project construction; spark-prevention measures, fire watch, escape routes, and weather-sensitive scheduling.	Prior to ground-disturbing construction
Fire Safety Plan / Construction Safety Plan (Public Services)	MM 4.15-1, MM 4.15-2	Fire Safety Plan and Construction Safety Plan consistent with applicable fire-code requirements and Kern County Fire Department coordination.	Prior to construction
Local Infrastructure Cost-Share Contribution	MM 4.15-3	Applicant pays its proportional share of local infrastructure costs required to serve the Project per applicable development impact fees and CSD conditions.	Per development agreement / connection
2. Pre-Construction Biological Surveys and Authorizations			
Special-Status Plant Surveys (silver cholla, beavertail cactus, Barstow woolly sunflower, Charlotte's phacelia, Latimer's woodland gilia)	MM 4.4-1	Qualified biologist conducts pre-construction survey to determine plant locations; clearance survey report submitted to Kern County; California Desert Native Harvest Permit obtained where required.	Prior to grading permits / ground disturbance
Listed Plant Avoidance Protocols and Take Authorizations	MM 4.4-2	No incidental take or relocation of FESA-, CESA-, or NPPA-listed plants without USFWS/CDFW authorization; impact-avoidance buffers per agency protocols; qualified biologist confirmation prior to disturbance.	Prior to disturbance
Crotch's Bumble Bee Pre-Construction Surveys	MM 4.4-3	Pre-construction clearance surveys within 30 days before ground disturbance; nest/overwintering site avoidance buffers (100 ft minimum);	30 days before ground disturbance

Outstanding / Pending Item	Resolution MM(s)	What the MM Requires	Timing / Verification
		biological monitor present near active sites; USFWS/CDFW consultation if take potential.	
Burrowing Owl, Desert Tortoise, American Badger, Desert Kit Fox Surveys	MM 4.4-4	Qualified biologist conducts pre-construction clearance surveys 14 days prior to construction or ground disturbance; phased timing if required for species-specific seasons.	14 days prior to construction
Burrowing Owl Burrow Avoidance and ITP	MM 4.4-5	If burrows discovered, avoidance buffers per CDFG 2012 Staff Report; burrow monitoring; if avoidance infeasible, CDFW Incidental Take Permit (ITP) under CESA prior to work within buffer.	Prior to disturbance within buffers
American Badger and Desert Kit Fox Den Avoidance	MM 4.4-6	Avoidance of active dens; buffer zones; passive relocation by qualified biologist if required; den-disturbance windows respected.	Prior to disturbance within buffers
Mohave Ground Squirrel ITP and Avoidance	MM 4.4-7	If species detected during pre-construction surveys, CDFW Incidental Take Permit under CESA; avoidance and minimization measures coordinated with CDFW.	Prior to disturbance
Avoidance and Minimization Measures for Multiple Species	MM 4.4-8	Combined avoidance and minimization protocols for desert tortoise, burrowing owl, American badger, desert kit fox, and Mohave ground squirrel implemented during all phases of construction.	During construction
Pre-Construction Nesting Bird Surveys (MBTA Compliance)	MM 4.4-9	Pre-construction nesting bird surveys conducted by qualified biologist if work occurs during nesting season (Feb 1 – Aug 31); active-nest buffer zones until young have fledged; MBTA compliance.	Prior to construction during nesting season

Outstanding / Pending Item	Resolution MM(s)	What the MM Requires	Timing / Verification
Biological Monitoring During Ground-Disturbing Activities	MM 4.4-10	Qualified biologist monitors all ground-disturbing and vegetation-removal activities during all construction phases; daily/weekly reporting; CDFW notification of incidents.	During all construction
Worker Environmental Awareness Training (Bio)	MM 4.4-11	Mandatory training for all construction personnel on sensitive species identification, avoidance, reporting protocols, and consequences of noncompliance.	Prior to ground disturbance
3. Pre-Construction Cultural and Tribal Cultural Surveys			
Lead Archaeologist and Cultural Monitor Engagement	MM 4.5-1	Lead Archaeologist meeting Secretary of the Interior's Professional Qualifications Standards engaged prior to ground disturbance; archaeological monitor program established for sensitive areas.	Prior to ground disturbance
Native American Tribal Monitor Program	MM 4.5-2, MM 4.17-4	Tribal monitor(s) working under Lead Archaeologist supervision present during ground disturbance in identified sensitive areas; identified through NAHC consultation process.	During ground disturbance
Inadvertent Archaeological Discovery Procedures	MM 4.5-3, MM 4.17-2	Stop-work within 100-ft radius of any unanticipated discovery; qualified archaeologist evaluation; avoidance preferred; Native American monitor participation where warranted; documentation per State protocols.	During ground disturbance
Worker Cultural Resources Awareness Training	MM 4.5-4, MM 4.17-1, MM 4.17-5	All construction personnel receive cultural awareness training before working on the Site; training covers identification, reporting protocols, and confidentiality requirements.	Prior to construction (each new worker)
Human Remains Stop-Work and Notification Procedures	MM 4.17-3	Stop-work procedure if human remains encountered; Kern County Coroner notification; NAHC notification within 24 hours if Native American; Most	During ground disturbance

Outstanding / Pending Item	Resolution MM(s)	What the MM Requires	Timing / Verification
		Likely Descendant (MLD) process per PRC §5097.98.	
NAHC Consultation Documentation	MM 4.17-1	NAHC consultation request documentation; tribal outreach to interested parties identified by NAHC; correspondence summary; AB 52 compliance.	Prior to ground disturbance (consultation already initiated)
4. Pre-Construction Paleontological Surveys and Monitoring			
Paleontological Resources Sensitivity Assessment	MM 4.7-5	Project Paleontologist confirms PFYC sensitivity ratings; identifies Project components (foundations, transmission tower bases, utility trenches) extending more than 5 feet bgs requiring monitoring.	Prior to construction
Pre-Construction Worker Awareness Training (Paleo)	MM 4.7-6	Project Paleontologist or Field Monitor attends pre-construction meetings; provides Worker Environmental Awareness Program (WEAP) covering identification, avoidance, and reporting of fossils.	Prior to ground disturbance
Paleontological Monitoring and Salvage	MM 4.7-7	Field Monitor present during ground-disturbing activities in high-sensitivity areas; salvage of fossils per industry-standard protocols; documentation, curation arrangements with accredited repository.	During ground disturbance
Paleontological Final Summary Report	MM 4.7-8	Final summary report upon completion of ground-disturbing activities outlining results of monitoring, fossils recovered, and curation arrangements; submitted to Kern County and accredited repository.	After construction completion
5. Air Quality and Construction Emissions			
PM10 Construction Dust Reduction Measures	MM 4.3-1	Implementation of EKAPCD-approved dust control measures during all construction activities; watering, soil	During construction

Outstanding / Pending Item	Resolution MM(s)	What the MM Requires	Timing / Verification
		binders, wind fencing, vehicle speed limits, track-out prevention; visible dust observation by qualified observer.	
Building (Structure) Construction Dust Controls	MM 4.3-2	Building construction PM10 controls including covered material handling, dust suppression, and waste material containment.	During construction
Vehicular Activity Dust Controls	MM 4.3-3	Speed limits on unpaved surfaces (15 mph); track-out prevention at construction site exits; vehicle washing.	During construction
EKAPCD Authority to Construct (BACT determination, Subpart IIII compliance)	MM 4.6-10	Authority to Construct issued by EKAPCD prior to engine installation; BACT determination based on Tier 2-certified base engines with Johnson Matthey CompactSCRT aftertreatment achieving Tier 4 Final-equivalent emission levels at stack; Subpart IIII compliance.	Prior to engine installation
6. Hydrology, Water Resources, and GSP Compliance			
Hydrologic Study and Drainage Plan	MM 4.10-1	Site-specific hydrologic study and drainage plan addressing 100-year design storm, on-site retention, off-site impact prevention, and consistency with regional drainage patterns.	Prior to grading permits
GSP Compliance (Annual Pumping Allocation, Augmentation Fees)	MM 4.10-2	Compliance with all applicable IWVGA Groundwater Sustainability Plan requirements, including annual pumping allocations, augmentation fees, and adaptive management framework. Project water demand shall not exceed CSD allocation.	Annual; ongoing operations
Water Source Verification (Pre-Permit)	MM 4.10-3	Verification of executed Will-Serve Letter and CSD water-source assignment prior to issuance of building or grading permits; updated periodically if source allocation changes.	Prior to building/grading permits

Outstanding / Pending Item	Resolution MM(s)	What the MM Requires	Timing / Verification
7. Final Engineering / Design-Stage Items			
Cooling Tower Blowdown Pretreatment Evaluation	MM 4.18-4	Pretreatment evaluation of cooling tower blowdown by Inyokern CSD; pretreatment system designed and constructed prior to operational discharge.	Prior to operations
HVAC Condensate Volume Determination	MM 4.18-5	HVAC condensate volumes determined at final engineering and incorporated into water mass balance; reuse opportunities evaluated.	Final engineering
Switchyard and Transmission Line Audible Noise Calculations	No specific MM – component of Project Design	Per CEC Appendix B §(g)(4)(F), audible noise from switchyards and transmission lines calculated at property boundary and ROW edge; updated calculations provided after finalization of design (currently summarized in Appendix G.1). If Jun prefers a dedicated MM for this rather than treating as PDM, recommend creating MM 4.13-2.	Final design
Supplemental EMF Calculations (Section 3.0)	No specific MM — component of Project Design	Per CEC Appendix B §(g)(18), supplemental EMF calculations updated after final transmission and switchyard design; calculated at property boundary and ROW edge. If Jun prefers a dedicated MM for this rather than treating as PDM, recommend creating MM 4.9-11 or a Section 3.0-specific MM.	Final design
Water Mass Balance Diagrams (Average and Maximum Flows)	No specific MM — component of Project Design;	Per CEC Appendix B §(g)(14)(C)(vii), water mass balance and heat balance diagrams updated for both average and maximum flows at final engineering, including process and ancillary water supplies and wastewater streams. See also reference to MM 4.18-4 (blowdown) and MM 4.18-5 (HVAC condensate); the integrated mass-balance diagram is handled as PDM.	Final engineering

Outstanding / Pending Item	Resolution MM(s)	What the MM Requires	Timing / Verification
8. Energy Efficiency and Operations			
PUE Monitoring and Reporting (Design Target 1.41)	MM 4.6-1, MM 4.6-2, MM 4.6-3	Operational PUE monitoring per ISO/IEC 30134-2:2026 standard; design target 1.41 (Phase 3 full buildout); annual reporting; energy efficiency monitoring and verification.	Annual operational reporting
Electrical Systems and Power Train Design	MM 4.6-5	High-efficiency electrical systems including UPS, transformers, and power distribution; design verified against efficiency targets.	Final design / commissioning
California Title 24 and Title 20 Compliance	MM 4.6-6	Building envelope, lighting, HVAC, and equipment compliance with Title 24 (Building Energy Efficiency Standards) and Title 20 (Appliance Efficiency); CALGreen compliance.	Final design / building permit
Building Efficiency and Building Standards	MM 4.6-7	Compliance with high-performance data center building standards; MAWA-compliant landscaping; cool roof and pavement specifications.	Final design / building permit
Grid Interconnection	MM 4.6-9	Grid interconnection completed via SCE per executed MOS174 (Method of Service Identification 174); System Impact Study completed; CAISO coordination if applicable.	Prior to commercial operation
9. Agency Permits, Determinations, and Coordination			
ALUC Consistency Determination (Inyokern Airport)	MM 4.16-4	Kern County ALUC Consistency Determination obtained for Inyokern Airport Compatibility Zone C; FAA Form 7460-1 (Notice of Proposed Construction or Alteration) submitted for any project component requiring notice; FAR Part 77 confirmation.	Prior to building permits
Encroachment Permits and Oversized Vehicle Permits	MM 4.16-3	Project proponent obtains required permits for all oversized vehicles used on public roadways; California Highway	Prior to use of public roadways

Outstanding / Pending Item	Resolution MM(s)	What the MM Requires	Timing / Verification
		Patrol coordination; Caltrans encroachment permits where applicable.	
California Highway Patrol Coordination	MM 4.9-8	CHP coordination for hazardous materials transport routes and emergency response; HM transport permits where required.	Prior to operations
RCRA / DTSC / Title 22 Hazardous Waste Compliance	MM 4.9-7	Compliance with RCRA, DTSC requirements, and Title 22 hazardous waste generator standards; manifesting, accumulation time limits, and disposal at permitted facilities.	Operational; ongoing
Inyokern CSD Coordination (Water and Sewer)	MM 4.6-11	CSD coordination for water service per executed Will-Serve Letter (April 2, 2026), wastewater discharge per Wastewater Characterization Report (MM 4.9-4), and infrastructure cost-share.	Throughout project lifecycle
County Permits and Entitlements (CUP, SPA, LLA)	MM 4.6-12	Conditional Use Permit (CUP), Specific Plan Amendment, Lot Line Adjustment No. 28-25, and other Kern County entitlements obtained.	Prior to building permits
SCE Method of Service (MOS174) Compliance	MM 4.18-2	Electrical service per SCE MOS174 specifications; coordination with SCE engineering for substation, switchyard, and transmission interconnection; commissioning sequence.	Prior to commercial operation
PG&E Natural Gas Coordination	MM 4.18-3 only applicable for completeness of utility review	The Project does not intend to use natural gas service for IT operations. See Section 4.18, Utilities and Service Systems as reference.	Prior to operations (if applicable)

10. Solid Waste, Recycling, and Operational Compliance

Construction and Operational Waste Recycling (CALGreen, AB 341)	MM 4.18-1, MM 4.18-6, MM 4.18-7	Recycling during construction (CALGreen 65% diversion minimum), operations (AB 341 commercial recycling, AB 1826 organics, SB 1383), and decommissioning; documentation per Kern County Solid Waste Management.	Construction; operations; decommissioning
Cumulative Utility and Service System Compliance	MM 4.18-8	Cumulative compliance with all utility and service system requirements including water, wastewater, stormwater, electrical, gas, telecommunications, and solid waste; cross-references MM 4.10-2 and MM 4.10-3 for groundwater.	Throughout project lifecycle
Wildfire and Fire Hazards Mitigation (Operational)	MM 4.20-3, MM 4.20-4	Fire hazards mitigation during operations including electrical infrastructure designed and installed to applicable safety standards to minimize ignition risk; vegetation management around facilities.	Operational; ongoing
Aesthetics Mitigation (Operational)	MM 4.5-6	Operational visual compliance per the Lighting Plan (MM 4.1-1) and Exterior Finishes (MM 4.1-2) maintained throughout the operational life.	Operational; ongoing
Hazardous Materials Mitigation (Operational)	MM 4.9-2, MM 4.9-9, MM 4.9-10	Continuous compliance with HMBP, fire safety controls, and operational hazard management; periodic agency reporting; corrective action procedures.	Operational; ongoing

11. Mineral Resources and Other Resource-Specific Items

Mineral Resources Compatibility Verification	MM 4.12-1	Desktop review of CGS Mineral Land Classification map confirms no MRZ-2 designation at the Site; documentation retained.	Pre-permit (already completed)
Noise Mitigation (Construction and Operations)	MM 4.13-1	Construction noise BMPs (equipment mufflers, construction hours per ordinance); operational noise	Construction; operations

		compliance per Kern County Noise Ordinance.	
12. Items Resolved Prior to Filing (Closed)			
Inyokern CSD Will-Serve Letter (Water Service)	(executed; cited in §1.4.5, §4.18.1)	Executed Will-Serve Letter from Inyokern CSD dated April 2, 2026 confirming water service capacity for the Project's full operational demand of 49.10 acre-feet per year.	Resolved (executed April 2, 2026)
SCE Method of Service Identification (MOS174)	(executed; Appendix M.3)	Method of Service Identification 174 (MOS174) executed with Southern California Edison; defines Point of Interconnection, transmission line route, switchyard configuration, and metering.	Resolved
Phase I Environmental Site Assessment (Phase I ESA)	(see §4.18.5; Appendix J.1)	Phase I ESA completed per ASTM E1527 within one year of Application filing; no Recognized Environmental Conditions (RECs) identified at the Site.	Resolved
Wetland Delineation / Section 404 Permit Determination	(see §4.4; Appendix D.1)	Wetland delineation confirms no jurisdictional waters of the U.S. on Site; USACE Section 404 permit not required.	Resolved
Le Conte's Thrasher Listing Status Update	(see §1.9.4; §4.4)	Le Conte's Thrasher upgraded to Candidate Species under California Endangered Species Act in April 2026; documented in Application; survey-and-avoidance protocols in MM 4.4-9 cover this species.	Resolved

Notes:

1. All Mitigation Measures (MMs) referenced in this matrix are defined in full text in their respective resource analyses (Sections 4.1 through 4.20 of the Application). Where a row references multiple MMs, all referenced measures together comprise the full mitigation pathway for the listed item.
2. Items in Category 12 ("Resolved Prior to Filing") do not require ongoing mitigation tracking but are documented here to demonstrate that the underlying matter was closed prior to Application filing.
3. Final Engineering / Design-Stage Items (Category 7) reflect the standard CEC SPPE practice in which certain disclosures are updated after the Project's final design is completed. Pre-design summary disclosures are provided in the Application body and the corresponding analyses; final design values will be submitted via supplemental disclosure consistent with CEC procedural requirements.

3.1 Items to Be Filed as Supplements Upon Receipt

The following items are pending receipt from third-party agencies, utilities, or consultants and will be transmitted to the Commission immediately upon availability. The below list is presented for planning purposes only and is not intended as a complete itemization of future submittals:

- **Native American Heritage Commission (NAHC) Tribal Outreach Responses.** The Applicant submitted Sacred Lands File (SLF) request letters to the NAHC on December 22, 2025 and January 23, 2026. Upon receipt of the NAHC contact list, tribal outreach letters were transmitted to all identified tribes pursuant to AB 52. Written tribal responses and summaries of any oral communications will be provided to the Commission on a rolling basis as they are received under confidential cover where appropriate. See Sections 4.5 and 4.17.
- **SCE Transmission Corridor APN Matrix.** The Applicant is coordinating with Southern California Edison Real Properties to finalize the Assessor's Parcel Number matrix for the two proposed 115 kV overhead subtransmission line corridors (Route 1 and Route 2) and the two SCE-owned utility fiber optic routes (Path A and Path B) between the Inyokern Substation and the Project Point of Interconnection. The matrix will be submitted to the Commission upon finalization of SCE's Real Properties rights analysis under MOS174. See Sections 1.5 and 2.1.
- **Inyokern CSD Final Water Service Agreement.** The Inyokern Community Services District executed the Project's Will Serve Letter on April 2, 2026. Final Water Service Agreement execution and connection fee documentation are pending completion of final civil engineering. The executed Water Service Agreement will be submitted to the Commission upon finalization. See Section 4.18 and Appendix E.3.

3.2 Items Pending Final Engineering

The following items require completion of final engineering design and will be filed as supplements prior to or concurrent with the Commission's data adequacy determination. The below list is presented for planning purposes only and is not intended as a complete itemization of future submittals:

- **Transmission Line ROW Width and Photographic Documentation.** Final right-of-way width confirmation and photographic documentation of the proposed transmission line route corridors are pending completion of SCE's final engineering under MOS174. These materials are required by 20 CCR Appendix B §(b)(2)(B). They will be submitted upon completion of final engineering. See Sections 1.5 and 2.1.
- **EMF Calculations at Property Boundary and ROW Edge.** Electromagnetic field calculations at the Project property boundary and at the edge of the transmission line ROW are pending finalization of the substation and transmission line design. These calculations are required by 20 CCR Appendix B §(g)(18). They will be submitted prior to the data adequacy determination. See Section 4.9 and Appendix L.1 through L.3.

- **Switchyard and Transmission Line Audible Noise Calculations.** Final audible noise calculations for the customer-owned substation and the two 115 kV overhead subtransmission lines are pending finalization of equipment specifications and line design. These calculations are required by 20 CCR Appendix B §(g)(4)(F). They will be submitted prior to the data adequacy determination. See Section 4.13 and Appendix G.1.
- **Final Hazardous Materials Inventory Tables.** Final hazardous materials inventory tables covering construction-phase and operational-phase materials at threshold quantities are pending finalization of mechanical and electrical engineering. The framework for these tables is provided in Section 4.9 and Appendix J.1. Final quantities and material identities will be provided upon completion of final engineering. See Section 4.9.
- **Cooling Water Recirculation Rate and Final Mechanical Design.** The cooling tower recirculation flow rate is provided at the conceptual design stage pending final mechanical engineering. Net consumptive makeup demand is approximately 28,500 GPD per the Inyokern CSD Will Serve Letter. Final design parameters and the complete water balance will be provided in supplemental water supply documentation. See Sections 1.4.4, 4.10, and 4.18, and Appendix E.3.

3.3 Items Pending Administrative Action or Third-Party Confirmation

The following items are pending administrative action and will be confirmed or supplemented as those actions are completed. The below list is presented for planning purposes only and is not intended as a complete itemization of future submittals:

- **Lot Line Adjustment No. 28-25 and Parcel Consolidation.** Recordation of Lot Line Adjustment No. 28-25 to consolidate APNs 084-010-43, 084-010-44, 084-010-45, and 084-010-48 into a single legal parcel is required prior to the start of construction but does not need to occur prior to the Commission's decision on this Application. Recordation status will be reported in subsequent filings. See Section 1.2.2 and Table 1-1.
- **Kern County Discretionary Approval Case Numbers.** The Project requires a Conditional Use Permit (CUP), Specific Plan Amendment for Inyokern Specific Plan circulation, and Lot Line Adjustment from Kern County Planning and Natural Resources. Applications for these entitlements have been submitted concurrently with this Application. Kern County case numbers will be inserted in Section 1.8 and Table 1-3 upon assignment.
- **Zone Change Records Search.** A zone change records search for recent or proposed zone changes in the Project vicinity is in preparation and will be provided to the Commission upon completion. See Section 4.11.

4.0 -Environmental Settings, Impacts, and Mitigation

4.1 AESTHETICS

Introduction

This section of the Application discusses impacts associated with the potential for the Project to degrade the existing visual character or quality of the Project Site and its surroundings through changes in the existing landscape. Potential effects are evaluated relative to important visual features (e.g., scenic highways, scenic features) and the existing visual landscape and its users. Degradation of the visual character of a Site is addressed through a qualitative evaluation of the changes to the aesthetic characteristics of the existing environment, and the Project-related modifications that would alter the visual setting.

Relevant information from the Executive Summary and Project Description (Section 1), Site Plan (Appendix A.1), Visual Resources Site Renderings (Appendix A.2), and the Visual & Lighting Analysis (Appendix I.1) are discussed in this section.

CEC SPPE Appendix B — Section (g)(6) Applicability

California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(6) — Visual Resources — requires the Applicant to provide information regarding the visual setting, scenic resources, key observation points, visual simulations, lighting and glare, and conformance with applicable local lighting and aesthetic standards.

Specifically, Appendix B, Section (g)(6) requires:

(A) A description of the regional and local visual character, topography, and land use context, including identification of scenic highway designations, eligible scenic corridors, and key observation points.

(B) An analysis of potential impacts on scenic vistas, scenic resources within a state scenic highway corridor, visual character and quality of public views, and new sources of substantial light or glare.

(D)(v) A Project-specific conceptual outdoor lighting control and management plan; a list of Project-specific luminaires with design type and IDA seal information; and a description of reflectance and specular reflectance characteristics of the Project's large buildings, structures, and major equipment.

All Section (g)(6) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.1.1–4.1.4. The Appendix B supplemental disclosure is provided in Section 4.1.6. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.1-A, immediately preceding Section 4.1.5.

The following terms and concepts are used throughout this section to describe and assess the aesthetic setting and impacts from the Project.

Visual Concepts and Terminology

Visual or aesthetic resources are generally defined as both the natural and built features of the landscape that contribute to the public's experience and appreciation of the environment. Depending on the extent to the Project would alter the perceived visual character and quality of the environment, a visual or aesthetic impact may occur.

- **Viewshed:** defined as the surrounding geographic area from which the Project is likely to be seen, based on topography, atmospheric conditions, land use patterns, and roadway orientations.
- **Project viewshed:** describes the area surrounding a Project Site where a person standing on the ground or driving a vehicle can view the Project Site.
- **Key observation point (KOP):** one or a series of points on a travel route or at a sensitive use area, such as a residence, where the view of a Project would be the most revealing.
- **Scenic vista:** an area identified or known for high scenic quality. Scenic vistas may be designated by a federal, State, or local agency. Scenic vistas can also include an area that is designated, signed, and accessible to the public for the express purposes of viewing and sightseeing.
- **Scenic highway:** any stretch of public roadway that is designated as a scenic corridor by a federal, State, or local agency.

Sensitive receptors or sensitive viewpoints: viewer responses to visual settings are inferred from a variety of factors, including distance and viewing angle, type of viewers, number of viewers, duration of view, and viewer activities. The viewer type and associated viewer sensitivity are distinguished among Project viewers in recreational, residential, commercial, military, and industrial areas. Viewer activities can range from a circumstance that encourages a viewer to observe the surroundings more closely (such as recreational activities), to discouraging close observation (such as commuting in heavy traffic). Residential viewers typically have extended viewing periods and are generally considered to have high visual sensitivity. For this reason, residential views are typically considered sensitive.

Viewers from public parks, recreational trails, and/or culturally important Sites: have high visual sensitivities; therefore, such locations are considered sensitive viewpoints. Viewers in commercial, military, and industrial areas are not typically focused on the views and the areas do not promote enjoyment of views; therefore, viewers in these locations are assumed to have low sensitivity.

Viewing distance zones: the landscape is subdivided into three distance zones based on relative visibility from travel routes or observation points. The three zones are: foreground, middle-ground, and background. The foreground zone includes areas less than one-quarter mile away, the middle-

ground zone includes areas one-quarter mile to 3 miles away, and the background zone includes areas beyond 3 miles (FHWA, 2015).

Visual sensitivity: the overall measure of an existing landscape's susceptibility to adverse visual changes. When viewing the same landscape, people may have different responses to that landscape and any proposed visual changes, based upon their values, familiarity, concern, or expectations for that landscape and its scenic quality. Because each person's attachment to and value for a particular landscape is unique, visual changes to that landscape inherently affect viewers differently. Nonetheless, generalizations can be made about viewer sensitivity to scenic quality and visual changes. Residents and recreational users (e.g., hikers, equestrians, tourists, etc.) are expected to be highly concerned with scenery and landscape character. Local motorists who commute daily through the same landscape may have a moderate concern for scenery, while people who work within highly urbanized areas may generally have a lower concern for scenic quality or changes to existing landscape character.

The visual sensitivity of a landscape is affected by the viewing distances at which it is seen. The visual sensitivity of a landscape also is affected by the travel speed at which a person is viewing the landscape (high speeds on a highway, low speeds on a hiking trail, or stationary at a residence). The same feature of a Project can be perceived differently by people depending on the distance between the observer and the viewed object. When a viewer is closer to a viewed object in the landscape, more detail can be seen, and there is greater potential influence of the object on visual quality because of its form or scale (relative size of the object in relation to the viewer). When the same viewed object is viewed at background distances, details may be imperceptible but overall forms of terrain and vegetation are evident, and the horizon and skyline are dominant. In the middle ground, some detail is evident in the foreground and landscape elements are seen in context with landforms and vegetation patterns in the background. The same levels of sensitivity apply in this case as with close-up and further away views—views from cars at high speeds would be less sensitive to changes than views at low speeds because more details can be drawn from the landscape at lower speeds.

4.1.1 Environmental Setting

Regional Characteristics

The Project Site is located in the Indian Wells Valley within the Western Mojave Desert in northeastern Kern County. The Project Site is located in the unincorporated community of Inyokern, and is approximately 9.4 miles south of Inyo County and approximately 9.3 miles west of San Bernardino County. The unincorporated community of Indian Wells is approximately 3 miles to the west and the City of Ridgecrest is approximately 5.5 miles to the east.

The Indian Wells Valley is located in northeastern Kern County and is surrounded by four mountain ranges: the Sierra Nevada on the west, the Coso Range on the north, the Argus Range

on the east, and the El Paso Mountains on the south. Topography in the Project area is relatively flat; the topographic characteristics of the Project Site and surrounding region provide open, expansive views of mountains and mountains around the valley.

Land uses in the region include a mix of vacant land, solar energy production, low-density residential development, and other commercial and industrial uses. The Project area is primarily accessible by existing major north-south roadway United States Highway 395 (US 395). US 395 is located to the east of the Project Site.

The Project Site would be directly accessed by Inyokern Road (SR-178) onto Brown Road. US 395, located adjacent to the Project Site on the northeast, includes an on- and off- ramp providing vehicular access to and from SR-178. Other major north-south roadways in the region are State Route 14 (SR-14), located approximately 3.2 miles west of the Project Site.

The Pacific Crest National Scenic Trail (commonly known as the Pacific Crest Trail or PCT) is approximately 12.5 miles west of the Project Site. Forest, parkland, and preserve areas in the vicinity of the Project Site include the Sequoia National Forest and Red Rock Canyon State Park located approximately 4.5 miles to the west and 20 miles to the southwest of the Project Site, respectively. A portion of the Los Angeles Aqueduct is approximately 4.5 miles west of the Project Site.

The Indian Wells Valley region has experienced fluctuating population growth over the last 20 years; the majority of people residing in the region are concentrated in and around the unincorporated rural community of Inyokern (population approximately 958; ACS 2023 5-year estimate; ACS 2024 5-year estimate), China Lake Acres (population 2,594; ACS 2024 5-year estimate) and the City of Ridgecrest (28,225; ACS 2024 5-year estimate).

Local Characteristics

The Project Site is located on approximately 50 acres of privately-owned land that is relatively flat, with an approximate elevation ranging from 2,300 to 2,400 feet (700 to 730 meters) above mean sea level (amsl). The Project Site is undeveloped and comprised of both disturbed and undisturbed native and nonnative habitats. Plant communities on the Project Site consist of Mojave creosote bush scrub and saltbush scrub. Non-native species include several mustard species and five grass species.

Currently, there are no structures within the Project boundaries. Structures and uses proximate to the Project Site include:

- **Southern Perimeter:** The Project Site is bounded by SR-178 along the southern perimeter. A Chevron gas station and convenience store is located immediately adjacent to the southern boundary (APN: 084-010-45) (Photo 4-1). A retail center and outdoor

storage operated by Ace Hardware and Storage Facility is located across SR-178, approximately ~150 feet south of the Project boundary (Photo 4-2 and 4-2.1).

- **Western Perimeter:** The Project Site is bounded by Brown Road along the western perimeter. From the intersection of SR-178 and Brown Road, commercial and retail buildings (Photo 4-3, 4.3.1 and 4-3.2) and residential buildings (Photo 4-4) are located on the western side of Brown Road, approximately ~60 to ~100 feet west of the Project boundary. Additionally, the southwestern corner of the Project Site abutting the Chevron gas station and the intersection of SR-178 and Brown Road consists of a graded and undeveloped area used by the public and customers of the Chevron gas station for flow-over parking. (Photo 4-5 and 4-5.1)
- **Northern Perimeter:** The Project Site is directly adjacent to the RB Inyokern Solar Project (RB Solar) along the northern perimeter, sharing a common boundary. RB Solar is a single-axis tracking photovoltaic facility consisting of approximately 98,980 photovoltaic panels and auxiliary equipment and facilities located on an approximately 166.5 acre Site that is completely fenced (Photo 4-6 and 4-6.1). A 100' wide west-east access easement (of which a larger approximately 138' wide area running west and east of the Project Parcel has been degraded) located between RB Solar and the Project is partially unvegetated. These disturbed lands lie between the southern, fenced boundary of RB Solar and the northern perimeter of the Project Site (Photo 4-6.2).

A Kern County Sanitation District (KCSO) wastewater treatment facility is located in the vicinity of the Project Site proximate to the northern perimeter of the Project Site.

- **Eastern Perimeter:** The Project Site is directly adjacent to approximately 18.76 acres of undeveloped, vacant land along the eastern perimeter (APN: 084-010-42) (Photo 4-6.2 and 4-6.3). The abutting parcel is bounded by SR-178 along the southern perimeter and US 395 and a barbed wire fence owned by the Department of Public Works, Division of Highways, State of California along the eastern perimeter.
- **Proposed Utility Easement.** A 30' wide utility easement is proposed by the Applicant starting from the southeastern corner of the Project Site, running south across SR-178, to West Graaf Avenue and the east on W Graaf Avenue to a proposed SCE Point of Interconnection (POI). The POI is proximate to US 395 and is proximate to a barbed wire fence owned by the Department of Public Works, Division of Highways, State of California along its eastern perimeter.

The proposed utility easement area is bounded on the north by SR-178, on the west by Nadine Street, and on the northeast and east by Moonwind Street. The easement area runs southeast and east along West Graaf Avenue. Electric transmission lines are located along West Graaf Avenue through the entire proposed easement area. (Photo 4-6.4)

Description of Aesthetics Project Elements

Data Center Campus

The Project consists of a single integrated data center building of approximately 238,000 square feet with a maximum structural height of 30 feet at the top of rooftop mechanical equipment. The

building is designed to accommodate six modular data halls, each with an IT equipment load of 10 to 12 MW, scalable to rack densities ranging from 10 kW to 50 kW to support high-performance computing (HPC) and artificial intelligence (AI) workloads. The building includes secure data center suites housing client servers and associated infrastructure, and administrative and support facilities including lobby, restrooms, conference rooms, offices, a loading dock, and storage areas. The Project provides approximately 155 dedicated on-site parking spaces.

Ancillary Solar PV

1 MW of photovoltaic (PV) system installed on the rooftop of the data center and as parking canopies within the developed campus footprint and a maximum height of 30 feet as an ancillary energy efficiency feature to offset a portion of on-site daytime electrical demand.

Transmission Line Corridors: The Project's CEQA project boundary extends beyond the four on-site APNs to include off-site SCE electrical infrastructure in two categories. Subject to final routing by SCE, and as indicated in the SCE Method of Service (MOS) Study MOS174 (March 30, 2026), the Project will be served by two (2) overhead 115 kV subtransmission line corridors (Route 1, ~8,000 LF; Route 2, ~4,000 LF) and two (2) fiber optic routes (Path A, ~3,200 LF; Path B, ~8,250 LF) running east from APN 084-010-48 to the existing Inyokern Substation (APN 352-502-23-1). These corridors traverse third-party parcels in unincorporated Kern County. An APN matrix and land ownership analysis will be submitted upon finalization of SCE's Real Properties rights analysis under MOS174 (March 30, 2026). A westward expansion of the existing Inyokern Substation footprint (approximately 136 ft × 101 ft) is also included within this boundary. SCE will own and operate the utility-side interconnection facilities consistent with the MOS and applicable tariff requirements.

The Project is a low-rise data center facility and organized support areas into a vacant/undeveloped setting near SR-178/U.S. 395. Lighting management and glare/reflectance controls are addressed in Appendix I.1 and will be refined through final fixture selection and photometrics during detailed engineering and permitting consistent with Appendix I.1.

The following design elements of the Project, which are relevant to mitigating impacts to the aesthetics characteristics of the Project Site and surrounding area, are discussed in section 4.1.5 (Mitigation Measures); specifically, MM 4.1-1 (Outdoor Lighting Controls and Dark-Sky Compliance) and MM 4.1-2 (Exterior Building and Equipment Finishes).

Table 4.1-1: Visible Components and Concept-Level Dimensions

Project element (concept)	Aesthetic relevance / potential visibility	Concept status / dimensions
Main data center building	Primary mass visible from public rights-of-way	Low-rise massing concept ~ maximum 30 feet
On-site circulation + parking	Foreground paved areas/stripping	~155 spaces planned
Diesel generators	Potentially visible equipment yard elements	Included in conceptual plans
Cooling towers / air chillers	Potentially visible equipment yard elements	Included in conceptual plans
Fuel tanks + fuel pump building	Visible industrial support infrastructure	Included in conceptual plans
Water tanks / water treatment / well	Visible utility/support infrastructure	Included in conceptual plans

Table 4.1-2: Exterior Treatments / Color and Finish Commitments

Element	Concept-level intent (not final)	Basis / notes
Building exterior	Calm, natural palette; compliant with applicable Kern County requirements	Renderings illustrative; final materials/colors to be finalized during detailed design and permitting
Exterior reflectivity	Avoid highly glossy/highly reflective finishes where feasible	Reflectance/glare control addressed in Appendix I.1; final material reflectivity confirmed during detailed design and permitting
Equipment yards	Organized layout; screening evaluated and incorporated if required by County	Screening requirement per County design and permitting

Table 4.1-3: Concept Lighting Zones and Controls

Lighting zone (concept)	Purpose	Concept controls / approach
Circulation / parking / pedestrian	Safety and navigation	Shielding/aiming to limit spill; controls may include photocell/timer/dimming where feasible; consistent with “normally dim + task-up” approach in Appendix I.1
Loading / service	Operations and safety	Targeted lighting; minimize glare; task-up controls during activity where feasible
Equipment yards	Operational/security needs	Lighting minimized to what is needed; spill control via aiming/shielding; task-up during maintenance/activity where feasible
Perimeter / security	Security	Node-based perimeter lighting (no continuous fence-line lighting); dim baseline with task-up on motion where feasible; consistent with Appendix I.1

Sensitive Receptors

- **Schools:** The Inyokern Elementary School and Inyokern Senior Center are located 0.23 and 0.24 miles, respectively, from the Project Site.
- **Residential Areas:** The nearest residential area consist of a small rural residential tract located on Brown Road approximately 0.30 miles east of US 395 and 500 feet west of the Project Site. (Photo 4-4).

Scenic Highways

According to the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, there are no Designated State Scenic Highways within Kern County (see Section 4.1.2, Regulatory Setting, below, for more information on the State Scenic Highway Mapping System). The closest Eligible Scenic Highways are SR-14 (portion north of Business East Route 58) located approximately 3.2 miles to the west of the Project Site and Business East Route 58 (portion east of SR-14) located 43.2 miles south of the Project Site (Caltrans, 2017). Prominent views along SR-14 and Business East Route 58 adding to the scenic elements in the landscape for motorists include panoramic views of the open Mojave Desert landscapes and surrounding mountains.

In addition to the State Scenic Highway Mapping System, the Kern County General Plan Circulation Element (Circulation Element) designates scenic routes and defines a scenic route as any freeway, highway, road, or other public right-of-way, which traverses an area of exceptional

scenic quality and must be officially set as a Scenic Route by the Kern County Board of Supervisors or the State of California. Business East Route 58 and SR-14 are not officially designated State Scenic Highways and are not considered State Scenic Highways for this analysis. As part of the Circulation Element goals, policies, and implementation measures, Kern County adopted a Scenic Corridor Combining District to designate areas which contain unique visual and scenic resources as viewed from a major highway or freeway. The Project Site is not within a Scenic Corridor Combining District.

4.1.2 Regulatory Setting

Federal

National Scenic Byways Program

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration (FHWA). Under the program, the U.S. Secretary of Transportation recognizes certain roads as National Scenic Byways or All-American Roads based on their archaeological, cultural, historic, natural, recreational, and scenic qualities (FHWA, 2019a).

There are no National Scenic Byways or All-American Roads within the vicinity of the Project Site (FHWA, 2019b).

U.S. Department of the Interior, National Park Service, National Trails System Act

The National Trails System Act of 1969 seeks to preserve scenic and natural qualities along trails. The National Trails System Act assigns management responsibility for trails to various federal resource agencies, depending on which agency holds jurisdiction over the land on which the trail is located in a given area. The PCT was created under the National Trails System Act to provide for outdoor recreation opportunities and the conservation of significant scenic, historic, natural, or cultural qualities (USFS, 2016).

The PCT corridor runs through California, Oregon, and Washington, the southern terminus is on the U.S. border with Mexico and the northern terminus on the Canada–US border is located on the edge of Manning Park in British Columbia.

The PCT is located 12.5 miles west of the Project Site and is not considered directly relevant to this Aesthetics analysis.

State

California Scenic Highway Program

The California Department of Transportation (Caltrans) manages the California Scenic Highway Program, which was created in 1963 by the California legislature to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to

highways. The program includes a list of highways that are designated or eligible for designation as scenic highways to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. A highway may be designated as scenic based on certain criteria, including how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes on the traveler's enjoyment of the view (Sections 260 through 263 of the Streets and Highways Code).

As described in Section 4.1.1, Environmental Setting, there are no Designated State Scenic Highways within Kern County. The closest Eligible Scenic Highways are SR-14 (portion north of Business East Route 58) located approximately 3.2 miles to the west of the Project Site and Business East Route 58 (portion east of SR-14) located approximately 43.2 miles south of the Project Site (Caltrans, 2017).

California Energy Commission (CEC) SPPE Appendix B ((6) Visual Resources

(D)(v) requires the Applicant to provide a Project-specific conceptual outdoor lighting control and management plan (lighting plan) and explain the control of reflectance from exterior surfaces offsite that conform with the city municipal code or county government code. The Applicant is also required to:

- Provide a list of the Project-specific luminaires, identify the design (e.g., full cutoff, semi cutoff, non cutoff) and indicate if the luminaires have the International Dark-Sky Association Fixture Seal of Approval to the extent feasible consistent with safety and security considerations. Show the Project-specific luminaires locations on a diagram or elevation.
- Describe reflectance, the intensity of the specular reflectance from the exterior surface of the Project's large buildings, structures, and major equipment off-site to the surrounding area (e.g., the light reflected from the shiny surface). The reflectance of the object--how bright it shines--depends on the intensity of the light striking it and the materials from which it is made (e.g., glass, reinforced concrete, structural steel).

Local

Kern County General Plan

The Land Use, Open Space, and Conservation Element of the Kern County General Plan evaluates the visual and aesthetic setting of Kern County and assess the potential for and minimization of visual impacts. With respect to the Project, the following policies and implementation measure cited in Chapter 1: Land Use, Open Space, and Conservation Element (1.10.7: Light and Glare Policies) apply:

Policy 47: Ensure that light and glare from discretionary new development Projects are minimized in rural as well as urban areas.

Policy 48: Encourage the use of low-glare lighting to minimize nighttime glare effects on neighboring properties.

Measure AA: The County shall utilize CEQA guidelines and the provisions of the Zoning Ordinance to minimize the impacts of light and glare on adjacent properties and in rural undeveloped areas.

The Kern County General Plan Energy Element sets forth policies to encourage orderly energy development in visually sensitive areas. With respect to the Project, the following goal policy, and implementation measure cited in Chapter 5: Energy Element (5.4.7: Transmission Lines) apply:

Goal 1: To encourage the safe and orderly development of transmission lines to access Kern County's electrical resources along routes, which minimize potential adverse environmental effects.

Policy 1: The County should encourage the development and upgrading of transmission lines and associated facilities (e.g., substations) as needed to serve Kern County's residents and access the County's generating resources, insofar as transmission lines do not create significant environmental or public health and safety hazards.

Policy 2: The County shall review all proposed transmission lines and their alignments for conformity with the Land Use, Conservation, and Open Space Element of this General Plan.

Policy 3: In reviewing proposals for new transmission lines and/or capacity, the County should assert a preference for upgrade of existing lines and use of existing corridors where feasible.

Policy 4: The County should work with other agencies in establishing routes for proposed transmission lines. The County should discourage the siting of above-ground transmission lines in visually sensitive areas.

Policy 5: The County should discourage the siting of above-ground transmission lines in visually sensitive areas.

Measure B: The County shall continue to maintain provisions in the Zoning Ordinance and update as necessary to provide for transmission line development.

The Kern County General Plan Energy Element sets forth policies to encourage orderly solar energy development in visually sensitive areas. With respect to the Project, the following goal and policies and implementation measures cited in Chapter 5: Energy Element (5.4.5: Solar Energy Development) apply:

Goal 1: Encourage safe and orderly commercial solar development.

Policy 1: The County shall encourage domestic and commercial solar energy uses to conserve fossil fuel and improve air quality.

- Policy 2: The County should attempt to identify and remove disincentives to domestic and commercial solar energy development.
- Policy 3: The County should permit solar energy development in the desert and valley planning regions that does not pose significant environmental or public health and safety hazards.
- Policy 4: The County should encourage solar development in the desert and valley regions previously disturbed, and discourage development of energy projects on undisturbed land supporting State or federally protected plant and wildlife species.
- Measure A: The County shall continue to maintain, and update as necessary, provisions in the Kern County Zoning Ordinance to provide adequate development standards for commercial solar energy development.
- Measure B: The County should work with affected State and federal agencies and interest groups to establish consistent policies for solar energy development.

The Kern County General Plan Circulation Element defines a “Scenic Route” as any freeway, highway, road, or other public right-of-way which traverses an area of exceptional scenic quality. A roadway can only be designated as a scenic route by direct action of the Kern County Board of Supervisors or the State of California. The County has not designated SR-178 or US 395 as a County Scenic Route.

The Kern County General Plan relationship to the California Scenic Highways Master Plan identifies three (3) routes that are designated as an “Eligible State Scenic Highway” within the County. Route 1, which begins north of Mojave and continues to the Inyo County Line, consists of State Route 14 and HWY 395. Route 2 consists of Business East Route 58 between Mojave and Boron. Route 3 consists of 5 miles of State Route 41 in northwest Kern County. The Project Site would be visible from Route 1 and 2. However, because HWY 395, Business East Route 58, and SR-14 are not officially designated, they are not considered Scenic Highways for this analysis.

The Kern County Zoning Ordinance (Chapter 19.81: Dark Skies Ordinance (Outdoor Lighting)) was adopted to maintain the existing character of Kern County by requiring a minimal approach to outdoor lighting, recognizing that excessive illumination can create a glow that may obscure the night sky and excessive illumination or glare may constitute a nuisance. The ordinance provides requirements for outdoor lighting within specified unincorporated areas of Kern County in order to accomplish the following objectives:

- Objective 1: Encourage a safe, secure, and less light-oriented night-time environment for residents, businesses and visitors.
- Objective 2: Promote a reduction in unnecessary light intensity and glare, and to reduce light spillover onto adjacent properties.
- Objective 3: Protect the ability to view the night sky by restricting unnecessary upward Projections of light.

Objective 4: Promote a reduction in the generation of greenhouse gases by reducing wasted electricity that can result from excessive or unwanted outdoor lighting.

The Kern County Development Standards have specific regulations pertaining to lighting standards including the requirement that lighting must be designed so that light is reflected away from surrounding land uses so as not to affect or interfere with vehicular traffic, pedestrians, or adjacent properties.

The Kern County Airport Land Use Compatibility Plan, Chapter 3.3 Airspace Protection Other Flight Hazards covers land use characteristics which may produce hazards to aircraft in flight shall not be permitted within any airport's influence area. Specific characteristics to be avoided include:

- Glare, distracting lights, or light patterns which could be mistaken for airport lights;
- Sources of dust, steam, or smoke which may impair pilot visibility;
- Sources of electrical interference with aircraft communications or navigation; and
- Any use, especially landfills and certain agricultural uses, which may attract large flocks of birds.
- Any light or series of lights which may cause visual discomfort or loss of orientation during critical phases of flight.

The County's ALUCP requires that Projects located within the planning boundary or Airport Influence Area for each airport comply with the height restriction standards and procedures set forth in FAA Part 77. Section 4.5 of the ALUCP defines policies associated with the Inyokern Airport, including requirements regarding the height of proposed structures as well as certain land use characteristics, such as glare.

The Project Site is located approximately 0.3 miles east of the Inyokern Airport's western boundary and is within the airport influence area. Specifically, the Project Site is located in Compatibility C. According to the Kern County ALUCP, areas within Zone C would be impacted by "limited risk" due to aircraft at or below 1,000 feet above ground level. Per Section 3.3.3 of the ALUCP, the maximum height of structures or other objects is restricted to 35 feet above ground level for Projects within Zone C.

SCE's utility-side electrical infrastructure, including the 115 kV subtransmission poles associated with the Project's interconnection, is regulated by the California Public Utilities Commission (CPUC) under General Order 95 and is not subject to local ALUCP height restrictions.

All policies, goals, and implementation measures in the County General Plan, and the County ordinances and standards are incorporated by reference.

Inyokern Specific Plan

The Inyokern Specific Plan guides development within and surrounding the community of Inyokern by addressing issues of importance in the area by stating goals, policies, and implementation measures to accommodate growth while protecting the community's unique business, transportation, and environmental issues.

There are no objectives, policies, or implementation measures in the Inyokern Specific Plan that are applicable to aesthetics. The Inyokern Specific Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the Project. Nevertheless, all policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

4.1.3 Existing Conditions

Project Site: The Project Site is located on an undeveloped property surrounded predominantly by open, undeveloped lands. Undeveloped land is characterized as having very low ambient nighttime lighting levels. The Project Site does not currently contain any lighting.

Surrounding Uses: There are developed areas in the immediate vicinity that have limited lighting sources associated with roadway infrastructure, i.e, street lights and nearby commercial uses along State Route 178, namely the Chevron gas station and convenience store that is located in a portion of the southern boundary (APN: 084-010-45) uses security and safety commercial lighting 24 hours per day (Photo 4-1). A retail center and outdoor storage operated by Ace Hardware and Storage Facility located across SR-178 to the south also uses security and safety commercial lighting 24 hours per day (Photo 4-2 and 4-2.1).

Other minimal offsite fixed lighting in the area immediately surrounding the Site includes lighting fixtures associated with the wastewater treatment plant, RB Solar Project, the Inyokern Airport and scattered residential areas within the Project Site vicinity also provide some sources of lighting. The main source of nighttime lighting, although insubstantial, is from motorists passing through the area with headlights on.

Scenic Corridors: There are no National Scenic Byways or All-American Roads within the vicinity of the Project Site (FHWA, 2019b). The National Trails System Act PCT corridor is located 12.5 miles west of the Project Site and is not considered directly relevant to this Aesthetics analysis. There are no California Scenic Highway Act designated as State Scenic Highways within Kern County. The closest Eligible Scenic Highways are SR-14 (portion north of Business East Route 58) located approximately 3.2 miles to the west of the Project Site and Business East Route 58 (portion east of SR-14) located approximately 43.2 miles south of the Project Site (Caltrans, 2017). There are three (3) routes that are designated as an "Eligible State Scenic Highway" within the County. Route 1, which begins north of Mojave and continues to the Inyo County Line, consists of State Route 14 and HWY 395. Route 2 consists of Business East Route 58 between Mojave and

Boron. Route 3 consists of 5 miles of State Route 41 in northwest Kern County. The Project Site would be visible from Route 1 and 2. However, because HWY 395, Business East Route 58, and SR-14 are not officially designated, they are not considered Scenic Highways for this analysis.

Light and Glare: The existing Project Site is vacant and does not contribute to ambient lighting in the area. The main source of light and glare in the vicinity of the Project Site is streetlights along SR-178, highway lights along HWY-395, retail security and safety and parking lot lighting and reflective surfaces such as windows located on adjacent commercial uses, and transportation users including headlights.

4.1.4 Impacts and Mitigation Measures

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could potentially have a significant adverse effect on aesthetic resources. Except as provided in Public Resources Code Section 21099, a project would have a significant adverse effect on aesthetic resources if it would:

- a. Have a substantial adverse effect on a scenic vista?
- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the Site and its surroundings? If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?
- d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Methodology

The visual impact analysis evaluates: (1) the existing visual character and quality of the Project Site and surrounding area, including identification of sensitive receptors and key observation points; (2) whether existing visual conditions would be substantially degraded by Project implementation; and (3) whether new sources of light or glare would be created that would adversely affect day or nighttime views in the area. The analytical method used is a qualitative visual simulation approach based on field-verified key observation points (KOPs) selected to represent the range of sensitive receptor experiences. The evaluation of Project impacts is also based on professional judgment and analysis of the goals and policies contained within the adopted Kern County General Plan and the Inyokern Specific Plan, and compared to significance criteria established by CEQA.

Thresholds of Significance

Project Impacts

Impact 4.1-1: Would the Project have a substantial adverse effect on a scenic vista.

The Project Site is located in a rural area with industrial, commercial and residential development and is not located within or adjacent to a scenic vista or viewshed. As discussed in Section 4.1.3, Existing Conditions, there are no National Scenic Byways or All-American Roads within the vicinity of the Project Site (FHWA, 2019b). The National Trails System Act's Pacific Crest Trail (PCT) corridor is located 12.5 miles west of the Project Site and is not considered directly relevant to this Aesthetics analysis. There are no California Scenic Highway Act designated as State Scenic Highways within Kern County. The closest Eligible Scenic Highways are SR-14 (portion north of Business East Route 58) located approximately 3.2 miles to the west of the Project Site and Business East Route 58 (portion east of SR-14) located approximately 43.2 miles south of the Project Site (Caltrans, 2017).

There are three (3) routes that are designated as an "Eligible State Scenic Highway" within the County. Route 1, which begins north of Mojave and continues to the Inyo County Line, consists of State Route 14 and HWY 395. Route 2 consists of Business East Route 58 between Mojave and Boron. Route 3 consists of 5 miles of State Route 41 in northwest Kern County. The Project Site would be visible from Route 1 and 2. However, because HWY 395, Business East Route 58, and SR-14 are not officially designated, they are not considered Scenic Highways for this impact analysis.

Mitigation Measures: No mitigation measures are required.

Level of Significance: *Less than significant.*

Impact 4.1-2: Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Scenic vistas are areas identified or known for high scenic quality. Scenic vistas may be designated by a federal, State, or local agency. Scenic vistas can also include an area that is designated, signed, and accessible to the public for the express purposes of viewing and sightseeing. Visual impacts would most likely be limited to the small number of persons traveling along US 395, SR-178 and Brown Road.

The Project Site is located on approximately 50 acres of privately-owned land that is relatively flat, with an approximate elevation ranging from 2,300 to 2,400 feet (700 to 730 meters) above mean sea level (amsl). The Project Site is undeveloped and comprised of both disturbed and undisturbed low-lying native and nonnative plant habitats; and a notable absence of trees, rock formations, and other naturally occurring visual features. Plant communities on the Project Site consist of Mojave creosote bush scrub and saltbush scrub.

The Project Site is not located within an area designated for or identified as having a scenic vista. However, The Pacific Crest Trail (PCT) is approximately 12.5 miles west of the Project Site. The

area surrounding the Project Site are developed with the Inyokern Airport, commercial, and residential uses.

While implementation of the Project would add new manmade elements to views from the PCT, due to the distance of the Project Site from the PCT trail, along with intervening topography and the existing visual setting, would result in limited distant views of Project components. Distance from the PCT combined with intervening topography and the existing visual setting including the Inyokern Airport, the RB Solar Project, and a wastewater treatment plant and surrounding commercial and residential uses would result in the Project producing no noticeable impact to views from the PCT. Therefore, the Project would not have a substantial effect on a scenic vista and impacts would be *less than significant*.

As stated in this section there are no California Scenic Highway Act-designated State Scenic Highways within Kern County. The closest Eligible Scenic Highways are SR-14 (portion north of Business East Route 58) located approximately 3.2 miles to the west of the Project Site and Business East Route 58 (portion east of SR-14) located approximately 43.2 miles south of the Project Site (Caltrans, 2017).

Mitigation Measures: No mitigation would be required.

Level of Significance: *Less than significant*.

Impact 4.1-3: Would the Project in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the Site and its surroundings? If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality.

As described in Section 4.1.1, Environmental Setting, the Project Site is located in a non-urbanized area interspersed with low-lying desert vegetation and commercial development immediately south including the Chevron gas service station and convenience store and Ace Hardware retail store and storage facility as well as commercial and light industrial facilities to west of the Project Site. Significant industrial facilities including the RB Solar Project and a wastewater treatment plant is located north of the Project Site.

In order to determine whether the proposed Project would substantially degrade the existing visual quality of the non-urbanized Site, this analysis compares the existing visual setting with visual simulations of the post-Project visual conditions. As described above, six (6) KOPs were selected for visual simulation, per 20 CCR Appendix B §(g)(6)(C). These KOPs are representative of views that would be experienced from numerous sensitive receptor locations.

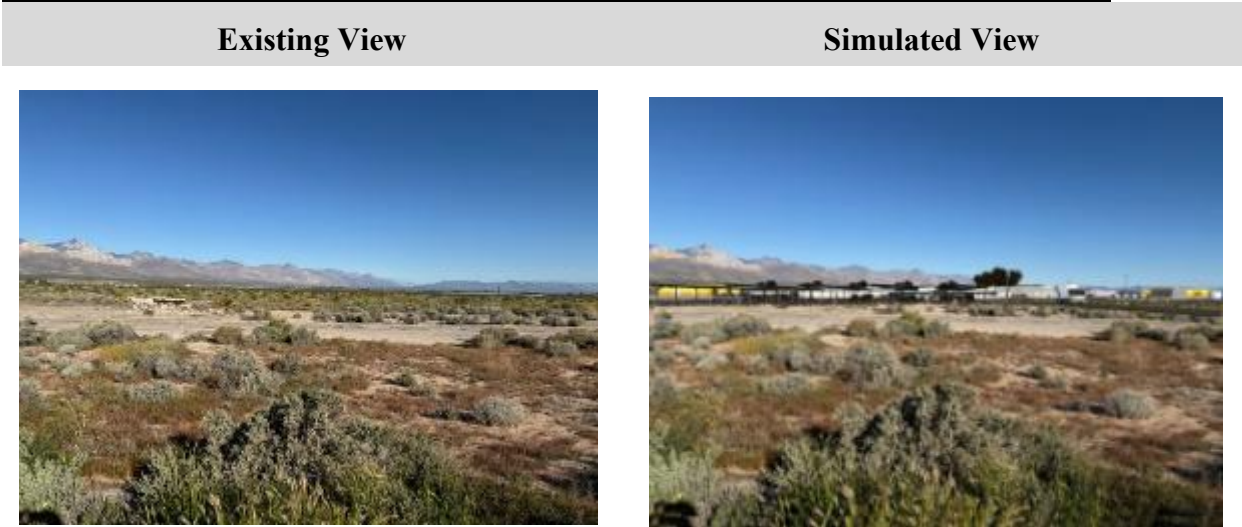
Visual simulations are provided in Figures AST-004 through AST-009. KOPs are described in Table AST-003, Visual Simulation Methodology and Assumptions. Impacts associated with operation of the Project would vary by viewer location and are discussed below by KOP.

KOP 1 (Figure AST-004) — SR-178 (Inyokern Road), Looking NNW toward Project

KOP 1 is located on SR-178 (Inyokern Road) south of the Project Site at GPS coordinates 35°38'55.58"N / 117°48'28.99"W, approximately ~65 m (~215 ft) from the southern Project boundary. The viewing direction is NNW toward the Project Site interior. Viewer sensitivity is HIGH, representing motorists and pedestrians on SR-178. This KOP was photographed on March 11, 2026 at 9:22 AM PST under clear weather conditions (Figure AST-004).

The existing view looking NNW from SR-178 shows Mojave creosote-saltbush scrub with concrete debris remnants in the foreground. The Project Site occupies a flat alluvial plain in the middle ground, with snow-capped peaks of the Sierra Nevada Range visible in the background to the northwest. No existing structures are present on the Project Site. The post-development view from KOP 1 would introduce the data center buildings and perimeter fencing in the middle ground. Given the proximity to the site boundary (~215 ft) and the currently undeveloped character of the middle ground, the proposed structures would represent a substantial change to the existing view from this location.

Figure AST-004. KOP 1 — SR-178 Looking NNW, Existing and Simulated Views



KOP 2 (Figure AST-005) — SR-178 / US-395 Interchange, Looking WSW toward Project

KOP 2 is located at the SR-178 / US-395 interchange area, east of the Project Site, at GPS coordinates 35°39'0.97"N / 117°48'20.15"W, approximately ~215 m (~705 ft) from the eastern Project boundary. The viewing direction is WSW toward the Project Site and utility easement. Viewer sensitivity is HIGH, representing motorists on SR-178 and US-395. This KOP was photographed on March 11, 2026 at 9:25 AM PST under clear weather conditions (Figure AST-005).

The existing view looking WSW shows the open Indian Wells Valley desert floor with creosote-saltbush scrub across the foreground and middle ground. Existing commercial/light industrial

development is visible at the left horizon. The Coso Range is visible in the background at right. The Project Site is undeveloped with flat terrain and unobstructed sightlines across approximately 700 feet. The post-development view from KOP 2 would introduce data center buildings and perimeter fencing across the middle ground. Given the relatively undeveloped character of the middle ground at this KOP, the proposed structures would be a dominating feature in the landscape.

Figure AST-005. KOP 2 — SR-178 / US-395 Interchange Looking WSW, Existing and Simulated Views



KOP 3 (Figure AST-006) — SR-178 / Brown Road Intersection, Looking NE toward Project

KOP 3 is located at the SR-178 / Brown Road intersection, southwest of the Project Site, at GPS coordinates 35°38'50.02"N / 117°48'43.33"W, approximately ~467 m (~1,532 ft) from the southwest Project corner. The viewing direction is NE toward the Project’s southwest corner. Viewer sensitivity is MODERATE-HIGH, representing motorists and commercial users at the SR-178/Brown Road intersection. This KOP was photographed on March 11, 2026 at 9:27 AM PST under clear weather conditions (Figure AST-006).

The existing view looking NE shows a gravel shoulder and native desert scrub in the foreground. The Chevron gas station canopy is visible at the right edge of the frame. The Project Site occupies undeveloped flat terrain in the middle ground, with the Argus Range visible in the far background. Existing utility poles along SR-178 are present in the view. The post-development view from KOP 3 would introduce data center buildings and perimeter fencing in the middle ground. Given the existing commercial development already visible from this KOP, the Project would add to an already modified visual setting.

Figure AST-006. KOP 3 — SR-178 / Brown Road Intersection Looking NE, Existing and Simulated Views



KOP 4 (Figure AST-007) — Brown Road Residential Area, Looking ENE toward Project

KOP 4 is located on Brown Road in the residential area west of the Project Site at GPS coordinates 35°38'58.54"N / 117°48'46.56"W, approximately ~505 m (~1,657 ft) from the western Project boundary. The viewing direction is ENE toward the Project’s western boundary. Viewer sensitivity is HIGH, representing residents and motorists on Brown Road. This KOP was photographed on March 11, 2026 at 9:28 AM PST under clear weather conditions (Figure AST-007).

The existing view looking ENE shows desert scrub with native saltbush in the foreground. High-voltage transmission towers are visible along the horizon, representing existing SCE infrastructure associated with the Project’s utility interconnection. A water tower is visible at the right. The Coso Range is visible in the right background. The Project Site is undeveloped flat terrain in the middle ground. The post-development view from KOP 4 would introduce data center buildings and perimeter fencing in the middle ground, contributing to a change in the character of views experienced by residents on Brown Road.

Figure AST-007. KOP 4 — Brown Road Residential Area Looking ENE, Existing and Simulated Views

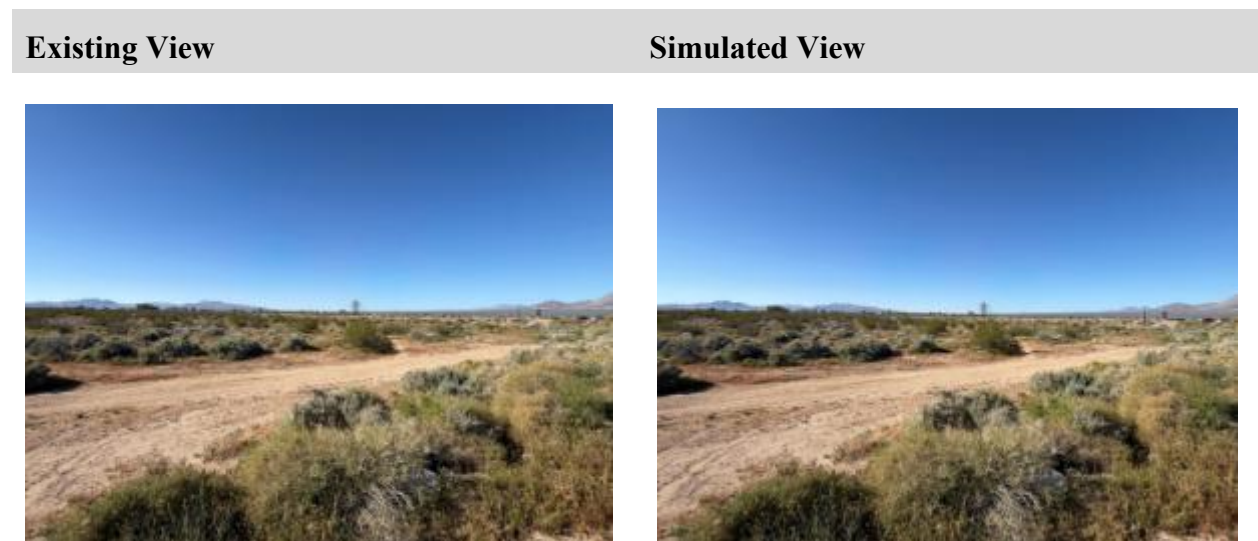


KOP 5 (Figure AST-008) — US-395 Off-Ramp onto SR-178, Looking WNW toward SCE POI

KOP 5 is located at the US-395 off-ramp onto SR-178, east of the Project Site, at GPS coordinates 35°39'4.89"N / 117°47'52.19"W, approximately ~914 m (~2,999 ft) from the eastern Project boundary. The viewing direction is WNW toward the SCE Point of Interconnection (POI) and associated transmission corridor. Viewer sensitivity is MODERATE, representing motorists exiting US-395 onto SR-178. This KOP was photographed on March 11, 2026 at 9:32 AM PST under clear weather conditions (Figure AST-008).

The existing view looking WNW shows existing high-voltage transmission towers extending across the middle-ground horizon, which constitute the dominant visual element from this vantage. A graded dirt access road with tire tracks is visible in the foreground. The Project Site is located at background distance (~3,000 ft) behind scrub vegetation. Because the Project Site is at a significant distance and is located behind established scrub vegetation from this vantage, the post-development view from KOP 5 would not contribute to a substantial reduction of vegetation visibility or the view's character. The pre-existing transmission infrastructure establishes the existing utility visual character at this location.

Figure AST-008. KOP 5 — US-395 Off-Ramp onto SR-178 Looking WNW, Existing and Simulated Views



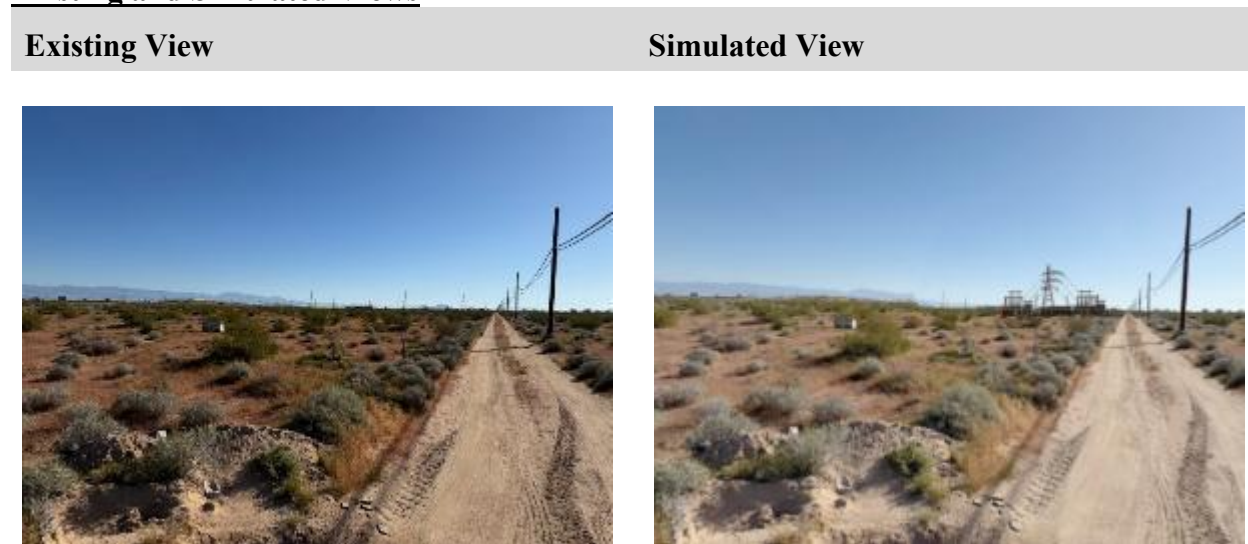
KOP 6 (Figure AST-009) — SR-178 / Nadine Street Area, Looking ENE toward SCE POI

KOP 6 is located in the SR-178 / Nadine Street area, south of the Project Site in the vicinity of the proposed SCE Point of Interconnection, at GPS coordinates 35°38'54.88"N / 117°48'19.15"W, approximately ~201 m (~659 ft) from the southern Project boundary. The viewing direction is

ENE directly toward the SCE POI. Viewer sensitivity is MODERATE, representing motorists and utility workers on SR-178. This KOP was photographed on March 11, 2026 at 9:30 AM PST under clear weather conditions (Figure AST-009).

The existing view looking ENE directly toward the SCE Point of Interconnection from the utility access road shows existing distribution poles with power lines prominent in the right foreground, extending toward the POI in the background. High-voltage SCE transmission towers are visible in the middle ground at the POI location. The Project Site boundary is at the left middle ground. The Sierra Nevada is visible at the far left background. This KOP represents the closest on-grade view of the SCE POI. The post-development view from KOP 6 would show the same existing transmission infrastructure with the addition of Project-related utility connections at the POI. Because existing utility infrastructure is the dominant visual element at this location, the Project's incremental contribution to the visual setting would be minor.

Figure AST-009. KOP 6 — SR-178 / Nadine Street Area Looking ENE toward SCE POI, Existing and Simulated Views



The Project's CEQA boundary also encompasses the westward expansion of the existing Inyokern Substation footprint (approximately 136 ft × 101 ft) and two overhead 115 kV subtransmission line corridors traversing third-party parcels east of the Project Site to the existing Inyokern Substation. As documented in KOP 5 (Figure AST-008) and KOP 6 (Figure AST-009), existing high-voltage SCE transmission infrastructure is already the dominant visual element in the eastern viewshed, and the incremental visual contribution of the substation expansion and subtransmission line corridors would be minor relative to the pre-existing utility visual character of the area.

Factors Reducing Visual Impacts

The following attributes of the Project and elements of the existing conditions would reduce visual impacts of the Project:

- The land is generally flat, minimizing the need for grading.
- The roads in the immediate Project areas do not have scenic designations.
- The data center buildings, which are the primary feature of the Project and would cover most of the land on the Site, would generally be 30 feet in height or less and would therefore not block long-distance views or be visible from beyond a small viewshed.
- The data center buildings would have limited windows and are not expected to have significant levels of glare.
- Minimal onsite lighting would be required during operations of the data center.
- The proposed 1 MW rooftop and carport solar PV panels would be 30 feet in height or less and therefore would not block long-distance views or be visible from beyond a small viewshed. The PV panels are not expected to have significant levels of glare.

The Project, which is consistent with the industrial uses contemplated by the General Plan, would be required to implement the County's General Plan, the Inyokern Specific Plan, and the County Airport Land Use Compatibility Plan, and other regulations and ordinances. The proposed Project would be reviewed in accordance with these guidelines during the Planning Permit stage as part of the County's planning and design review. Implementation of the proposed Project, consistent with existing policies, regulations, and adopted plans, and subject to compliance with applicable regulations governing scenic quality standards, would result in visual changes to the area that would be less than significant.

Mitigation Measures: MM 4.1-1 and MM 4.1-2 would be required.

Level of Significance: With the implementation of the stated mitigation measures, impacts would be *less than significant*.

Impact 4.1-4: Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

In respect to night lighting conditions, "light" refers to artificial light emissions, or the degree of brightness, generated by a given source. Regarding glare conditions, the Illuminating Engineering Society of North America (IESNA, 2000) defines "glare" as the sensation produced by luminance in the visual field that is sufficiently greater than the luminance to which the eye has adapted to cause annoyance, discomfort, or loss of visual performance and visibility.

Construction Phase

Lighting: The Kern County Noise Ordinance permits construction between 6 a.m. and 9 p.m. Monday through Friday and 8 a.m. to 9 p.m. on weekends. The Project has established more restrictive working hours of 7 a.m. to 6 p.m., Monday through Friday, consistent with Section 1.3 of this Application. Non-daylight hours may be necessary at times to address unanticipated schedule delays or to complete critical construction activities; in such cases, construction crews

would use minimal illumination directed downward and shielded to the active work area only, in order to perform the work safely. All lighting would be directed downward and shielded to focus illumination on the desired work areas only, and to prevent light spillage onto adjacent properties.

During construction, dusk-to-dawn security lighting would be required for the temporary construction staging area, parking area, construction office trailer entries, and Project Site access points. Lighting is not planned for typical construction activities because construction activities would occur primarily during daylight. As applicable, work on the data center campus and on the transmission lines during dark hours would be performed using battery or gas-powered light stands that would be directed to the active work area.

Any nighttime construction would use lighting designed to provide the minimum illumination needed, thereby minimizing adverse impacts on any nearby residents. As a result, construction of the Project would result in less-than-significant impacts to nighttime views.

Glare: Most of the proposed construction activities are planned to occur during daylight hours. Increased truck traffic and the transport of construction materials, equipment, and generators to the Project Site and transmission lines would temporarily increase glare conditions during construction. However, this increase in glare would be minimal and temporary. Construction activity would occur on focused areas of the Project Site as construction progresses and any sources of glare would not be stationary for a prolonged period of time. Additionally, the surface area of construction equipment would be minimal compared to the scale of the Site. Therefore, construction of the Project would not create a new source of substantial glare that would affect daytime views in the area. Impacts would be less than significant.

Operational Phase

As described in this section, the Project would include nighttime security lighting to provide maintenance personnel with illumination for both normal and emergency conditions. Lighting would be installed along the subtransmission line as required by FAA and minimal lighting is anticipated along the majority of the fence lines around the perimeter of the data center. Lighting would be designed to provide the minimum illumination needed to achieve safety and security objectives. Additionally, lighting would be directed downward and shielded to focus illumination on the desired areas only and to minimize light trespass in accordance with applicable County requirements.

Potential operational impacts associated with new sources of lighting at the Project would be minimized through compliance with applicable development standards pertaining to lighting, including Chapter 19.81 (Dark Skies Ordinance), as required, to provide the minimum illumination needed to achieve safety and security objectives. Therefore, implementation and compliance with applicable local development standards and regulations pertinent to lighting would minimize the potential for light trespass onto adjacent properties and roads, and impacts would be *less than significant*.

The introduction of a new industrial source of light in the area has the potential to impact the rural experience of surrounding residences as well as create impacts on the military mission in the R-2508 Airspace Complex. The Kern County ALUCP Military Aviation chapter requires that light and glare be managed so as not to impact the military mission of the R-2508 Airspace Complex and the installations of China Lake Naval Air Weapons Station (NAWS) and Edwards Air Force Base. Compliance with Kern County Zoning Ordinance Chapter 19.81 (Dark Skies Ordinance), which was designed and adopted to address resident and military installation concerns for desert areas of Kern County, and implementation of MM 4.1-1, would reduce these potential impacts to *less than significant*.

The proposed 1 MW rooftop and carport solar PV panels would be 30 feet in height or less and therefore would not block long-distance views or be visible from beyond a small viewshed. The PV panels are not expected to have significant levels of glare.

Mitigation Measures: MM 4.1-1 and MM 4.1-2 would be required.

Level of Significance: With the implementation of the stated mitigation measures, impacts would be *less than significant*.

California Energy Commission (CEC) SPPE Appendix B ((6) Visual Resources (D)(v) requires the Applicant to provide a Project specific conceptual outdoor lighting control and management plan (lighting plan) and explain the control of reflectance from exterior surfaces offsite that conform with the city municipal code or county government code.

Conceptual Outdoor Lighting Control Plan

As described in the Conceptual Lighting Plan (Appendix I.1), the Lighting Design Objectives of the Project are to:

- Provide safe and functional illumination for vehicular, pedestrian, security, and operational activities.
- Limit lighting to only those areas necessary for Site operation and security.
- Minimize light trespass beyond the Project boundary.
- Reduce glare and high-angle brightness visible from off-Site locations and surrounding airspace.
- Preserve the low-ambient nighttime character of the surrounding desert environment.
- Use lighting controls to reduce illumination levels when areas are unoccupied.
- Conform to a Lighting Control Philosophy – “Normally Dim + Task-Up”.

All exterior lighting will be governed by a “controls-first strategy” including the following measures:

Baseline Operation: During nighttime hours, exterior lighting operates at a low, dimmed baseline level sufficient to maintain safety, security presence, and basic circulation while minimizing off-Site visibility and sky glow.

Task-Up Operation: Lighting levels temporarily increase only in localized areas when activity is detected or after activity ceases, lighting automatically returns to the baseline condition following a programmed time delay initiated, including:

- Gate operation or access events
- Motion detected near perimeter fence corners
- Vehicle or personnel activity in operational yards or service drives

Emergency and Maintenance: Manual override capability is provided for emergency response and maintenance activities. Emergency egress lighting operates in accordance with applicable code requirements.

Site Lighting Zones and Nodes Entrance Gate Lighting: The Site includes a single controlled access point. Gate lighting is designed to:

- Operate at a dimmed baseline under normal conditions.
- Temporarily increase during gate operation or detected motion.
- Illuminate only the immediate gate area.
- Avoid high vertical illumination or vehicular identification lighting.
- All gate luminaires are fully shielded and aimed downward and inward toward the Site.

Perimeter Lighting: Perimeter lighting is intentionally node-based, not continuous. This approach reduces total installed lumens, minimizes light trespass, and supports dark-sky and airport compatibility objectives.

- Lighting is provided only at fence corner locations and the entrance gate.
- No continuous fence-line lighting is installed.
- Corner lighting operates at a dim baseline and increases only upon motion detection near the fence.

Parking Areas: Parking and internal circulation areas are illuminated using full cutoff luminaires.

- After hours, parking areas operate at reduced baseline levels.
- Task-up lighting is triggered by occupancy or vehicle movement.
- Lighting levels are selected to balance safety with minimized off-Site visibility.

Service Drives: Internal service drives operate at reduced baseline lighting levels.

- Task-up lighting is activated only during vehicle movement or service activity.
- Lighting is oriented to minimize spill toward the Site perimeter.

Operational Yards: Generator yards, cooling equipment yards, fuel areas, and utility areas maintain minimal baseline illumination.

- Lighting increases only during active maintenance or operational activity.
- Shielded luminaires and controlled aiming are used to prevent glare and reflected light from large equipment surfaces.

Building Perimeter and Egress: Building-mounted lighting is limited to code-required egress locations and select security points where pole lighting is not practical. All building-mounted luminaires are:

- Fully shielded
- Directed downward
- Integrated into the Site lighting control system to avoid continuous bright perimeter lighting

Luminaire Selection and Shielding: The number of luminaire families is intentionally limited to simplify operation, maintenance, and regulatory review. Where feasible and consistent with safety/security needs, luminaires will be selected from products holding the International Dark-Sky Association Fixture Seal of Approval; where not available, fixtures will meet equivalent full cutoff/fully shielded performance. All exterior luminaires are selected to meet the following criteria:

- Full cutoff or fully shielded optics
- No uplight fixtures- all fixtures will be directed downward
- Minimal high-angle brightness

- Dimmable drivers compatible with Site lighting controls
- House-side shielding or equivalent glare-control optics where fixtures are located near the Project boundary

Correlated Color Temperature (CCT): Exterior lighting will utilize warm correlated color temperatures consistent with dark-sky objectives. Area, perimeter, gate, and wall-mounted luminaires will be specified in the 2700K to 3000K range. Yard and task lighting fixtures will utilize 3000K sources, which represent the warmest available option for the selected fully shielded task-lighting luminaire family. Yard lighting is limited in quantity and operates primarily in task-up mode, further minimizing potential nighttime impacts.

Glare, Light Trespass, and Specular Reflectance Control: The lighting design incorporates multiple strategies to minimize glare and light trespass:

- Downward-directed luminaires with zero tilt wherever feasible
- Controlled mounting heights consistent with Kern County and airport compatibility constraints
- Task-up controls that limit the duration of higher lighting levels
- Coordination of lighting with building and equipment finishes to reduce reflected glare from large surfaces
- Use of non-reflective materials and neutral colors on the external walls of buildings and other large pieces of equipment such as tanks.
- Conservative assumptions regarding nearby sensitive receptors
- Property-line light levels will be evaluated during photometric analysis to demonstrate compliance.

Lighting Mounting Heights: Exterior lighting mounting heights will be limited to the minimum necessary to achieve safe and functional illumination, consistent with Kern County outdoor lighting regulations and airport compatibility considerations. Pole heights will comply with applicable Kern County height limitations for non-residential development and will be further constrained, where appropriate, to reduce glare, light trespass, and visibility from surrounding sensitive receptors and airspace. Final mounting heights will be confirmed during engineering and photometric analysis to ensure compliance with glare control and aviation safety requirements.

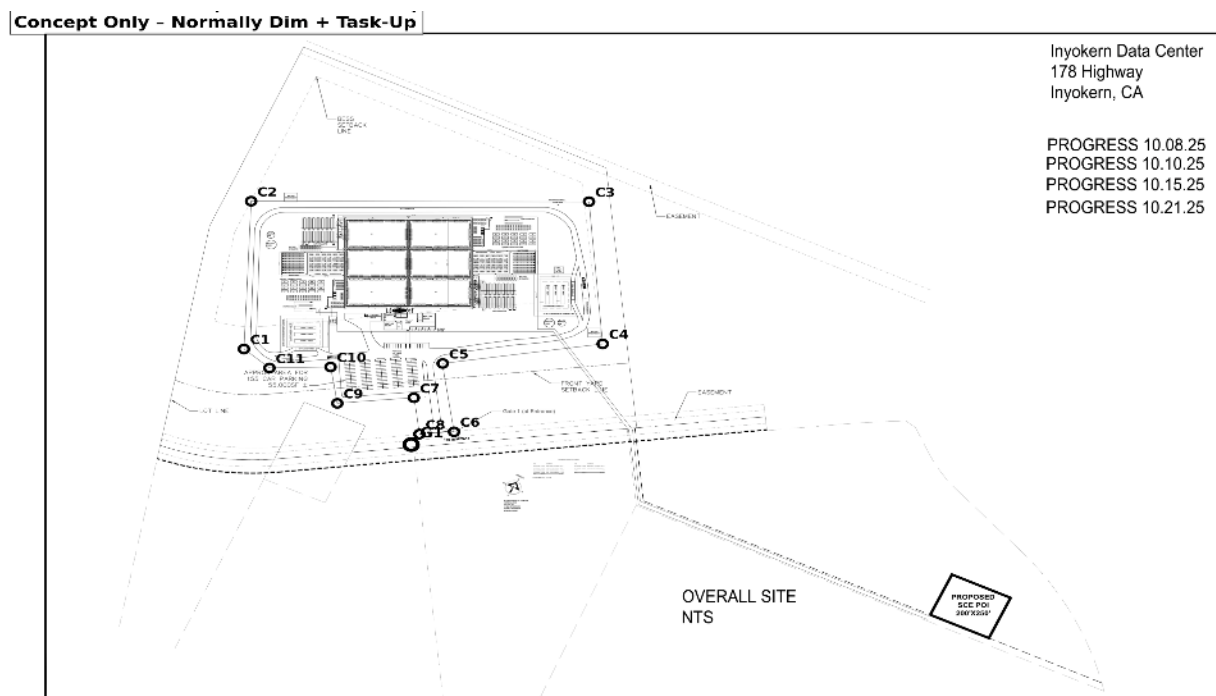
Biological Resource Considerations: Given the open desert context and documented wildlife habitat in the surrounding area, the lighting design emphasizes avoidance and minimization of nighttime disturbance. Full cutoff luminaires, low default illumination levels, and localized task-up controls limit light spill beyond the fenced Project boundary and reduce potential effects on adjacent habitat areas.

Airport Compatibility Considerations: All exterior lighting is designed to avoid glare or visual distraction visible from aircraft and to comply with applicable airport land use compatibility policies and FAA glare considerations. Any required FAA notification or review will be completed as part of Project implementation. Due to the Project's proximity to Inyokern Airport, the lighting concept explicitly addresses aviation compatibility by:

- Avoiding high-angle brightness visible from aircraft
- Preventing light sources that could be mistaken for aviation or navigational lighting
- Limiting lighting heights and controlling aiming to reduce off-Site visibility
- Using shielded, downward-directed luminaires exclusively

Construction Lighting: Temporary construction will adhere to Kern County regulations for outdoor lighting, as appropriate. Although construction will typically be conducted during daylight hours, if activities are needed prior to sunrise or after sunset, lighting will be minimized, fully shielded, directed downward, and limited in duration through a separate construction lighting plan to avoid unnecessary nighttime illumination.

Figure 4.1-7. Conceptual Outdoor Lighting Plan



Concept Site Lighting – Numbered Reference Key

Ref.	Zone / Node Description
[1]	Entrance Gate Lighting Node – Normally dimmed; task-up on gate operation or motion. No vehicular ID lighting.
[2]	Perimeter Corner Lighting Nodes – Corners only; no continuous fence lighting. Motion-activated task-up.
[3]	Parking Area Lighting Zone – Dim baseline after-hours; task-up on occupancy.
[4]	Service Drive Lighting Zone – Reduced baseline; task-up during vehicle or service activity.
[5]	Operational Yard Lighting Zone – Minimal baseline; task-up during maintenance or operations.
[6]	Building Perimeter / Egress Lighting – Shielded, downward-directed, coordinated with site controls.

List of the Project-Specific Luminaires

Attachment B (Bill of Materials) included in the Conceptual Lighting Plan (Appendix I.1), identifies the design (e.g., full- cutoff, semi-cutoff, non-cutoff functions) and indicate if the luminaires have the International Dark-Sky Association Fixture Seal of Approval to the extent feasible consistent with safety and security considerations.

Description of Reflectance

The following describe the reflectance characteristics of the lighting plan including the intensity of the specular reflectance from the exterior surface of the Project's large buildings, structures, and major equipment offsite to the surrounding area (e.g., the light reflected from the shiny surface).

As described in the Conceptual Lighting Management Plan (Appendix I.1), the reflectance of the Project's large buildings, structures, and major equipment is controlled through the selection of non-reflective materials and neutral colors on the external walls of the data center buildings and other large pieces of equipment, including tanks and mechanical systems. The lighting design coordinates exterior finishes with luminaire placement to reduce reflected glare from large surfaces. These measures reduce the intensity of specular reflectance from the Project's exterior surfaces to off-site areas.

The data center building is approximately 238,000 square feet, single-story, with a maximum height of 30 feet. The building's exterior surfaces and all major equipment within the fenced operational footprint are proposed to utilize non-reflective finishes and neutral earth-tone or low-reflectance colors. Specular (mirror-like) reflectance is minimized by avoiding glass curtain walls and highly polished metal cladding on the building exterior. Equipment such as generators, cooling units, and fuel tanks would utilize matte or low-sheen finishes to limit the intensity of reflected light reaching adjacent properties and roadways. Property-line light levels will be evaluated during final photometric analysis to demonstrate compliance with applicable Kern County standards. (Source: Conceptual Lighting Management Plan, Appendix I.1.)

Table 4.1-A. CEC SPPE Appendix B — Section (g)(6) Compliance Cross-Reference

Ref.	Appendix B Requirement	Section / Table	Status
(A) Setting Requirements			
(g)(6)(A)(i)	Regional visual character and landscape setting	Section 4.1.1.1	✓ Addressed
(g)(6)(A)(ii)	Local visual character, topography, and land use context	Section 4.1.1.2	✓ Addressed
(g)(6)(A)(iii)	Scenic highway designations and eligible scenic corridors	Sections 4.1.1.2, 4.1.2	✓ Addressed
(g)(6)(A)(iv)	Key observation points and viewer sensitivity	Section 4.1.4, Impact (c); Table AST-003; Figures AST-004–009	✓ Addressed
(B) Impact and Disclosure Requirements			
(g)(6)(B)(i)	Impact on scenic vista	Section 4.1.4 — Impact (a)	✓ Addressed
(g)(6)(B)(ii)	Damage to scenic resources within a state scenic highway	Section 4.1.4 — Impact (b)	✓ Addressed
(g)(6)(B)(iii)	Degradation of visual character — non-urbanized areas	Section 4.1.4 — Impact (c)	✓ Addressed
(g)(6)(B)(iv)	New source of substantial light or glare	Section 4.1.4 — Impact (d)	✓ Addressed
(g)(6)(C)	Visual simulations from KOPs — existing and post-project views	Section 4.1.4, Impact (c); Figures AST-004–009; Table AST-003	✓ Addressed
(g)(6)(D)(v)	Conceptual outdoor lighting control and management plan; luminaire list; reflectance description	Section 4.1.4, Impact (d)	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(6). All criteria addressed in this chapter; full technical disclosure in the Visual and Lighting Analysis (Appendix I.1).

4.1.5 Mitigation Measures

- MM 4.1-1: Outdoor Lighting Controls and Dark-Sky Compliance. Prior to issuance of grading and building permits, the Applicant shall prepare and submit to the Kern County Planning and Natural Resources Department for review and approval a Construction and Operations Lighting Plan. The plan shall cover all aspects of construction and operational lighting, including nighttime security lighting, construction lighting, and operations fencing and perimeter security lighting. The plan shall demonstrate compliance with Kern County Zoning Ordinance Chapter 19.81 (Dark Skies Ordinance) and the Kern County Airport Land Use Compatibility Plan glare provisions, including requirements applicable to the R-2508 Airspace Complex and the Inyokern Airport Compatibility Zone C, and shall include: (a) a photometric analysis demonstrating that property-line light levels comply with applicable Kern County standards; (b) luminaire cut sheets confirming full-cutoff or fully-shielded optics, warm correlated color temperatures (2700K–3000K), and dimmable drivers compatible with the site lighting control system; and (c) confirmation that no uplight fixtures are installed and that all luminaires are directed downward. Illustrative and conceptual fixture layouts shall be included in the plan, with final fixture determination for all buildings made after construction and prior to final inspection by the Kern County Building Inspection Division. The Applicant shall implement the approved plan prior to commencement of Project operations and shall maintain compliance throughout the operational life of the Project.
- MM 4.1-2: Exterior Building and Equipment Finishes. Prior to issuance of building permits, the Applicant shall submit to the Kern County Planning and Natural Resources Department for review and approval documentation confirming that the exterior surfaces of all data center buildings, perimeter structures, and major mechanical equipment (including generators, cooling units, and fuel tanks) within the fenced operational footprint shall utilize non-reflective finishes and neutral earth-tone or low-reflectance colors. Specular finishes, glass curtain walls, and highly polished metal cladding visible from adjacent public roadways shall not be used. The Applicant shall implement these requirements prior to commencement of Project operations.

4.1.6 CEC SPPE Appendix B - Additional Visual Resources Disclosure Requirements

This section provides the additional visual resources disclosure information required by CEC SPPE Appendix B, Section (g)(6). This information supplements the CEQA impact analysis provided in Sections 4.1.1 through 4.1.5 above. The Conceptual Outdoor Lighting Control Plan, luminaire list, and reflectance description addressing Appendix B, Section (g)(6)(D)(v) requirements are provided in Section 4.1.4, Impact (d) above.

Conceptual Outdoor Lighting Control and Management Plan — Appendix B (g)(6)(D)(v)

See Section 4.1.4, Impact (d) — Operational Phase above. The Conceptual Outdoor Lighting Control Plan, site lighting zones, luminaire selection, and all related disclosure content required by Appendix B (g)(6)(D)(v) are provided in full in that section and incorporated here by reference.

List of Project-Specific Luminaires — Appendix B (g)(6)(D)(v)

See Section 4.1.4, Impact (d) — List of the Project-specific luminaires above.

Description of Reflectance — Appendix B (g)(6)(D)(v)

See Section 4.1.4, Impact (d) — Description of Reflectance above.

4.1.7 Cumulative Setting, Impacts and Mitigation Measures

The cumulative analysis area for visual resources encompasses the Indian Wells Valley, including the community of Inyokern, China Lake Acres, and the City of Ridgecrest. This area represents the geographic scope within which past, present, and reasonably foreseeable future projects could contribute to cumulative changes in visual character, scenic resources, and light and glare conditions. See Appendix N.3 (Cumulative Projects and Cumulative Impacts Analysis) for the full list of past, present, and reasonably foreseeable projects considered in the cumulative visual resources analysis.

Past and present projects within the cumulative study area that contribute to existing visual and lighting conditions include the RB Inyokern Solar Project (RB Solar), the Inyokern Airport, commercial and light industrial development along SR-178 and US 395, and scattered residential development on Brown Road and adjacent streets. These existing uses have already introduced manmade structures, lighting, and visual change to the Project vicinity. Reasonably foreseeable future projects include additional renewable energy and commercial or industrial development consistent with the Kern County General Plan land use designations for the area.

The Project's incremental contribution to cumulative visual change consists primarily of the addition of data center buildings, perimeter fencing, and associated lighting within an area that is already substantially affected by the RB Solar Project and Inyokern Airport. The Project Site is not located within a designated scenic corridor, and there are no Designated State Scenic Highways within Kern County. With implementation of Mitigation Measures MM 4.1-1 and MM 4.1-2, the Project's individual contributions to visual character impacts and light and glare impacts would be reduced to less-than-significant levels. Other projects in the cumulative study area would be subject to the same CEQA review requirements and applicable Kern County codes, including the Dark Skies Ordinance (Chapter 19.81), that would independently reduce their visual and lighting impacts. Implementation of MM 4.1-1 would ensure that the Project implements best lighting practices, including advanced shielding and full-cutoff fixtures, and would not contribute to a cumulatively considerable light and glare impact for the region.

The Project is consistent with the General Plan land use and Energy Element goals and policies applicable to the Project Site and conforms with the Inyokern Specific Plan. The Project's contribution to cumulative visual and lighting impacts, when considered together with past, present, and reasonably foreseeable future projects, would not be cumulatively considerable with implementation of the required mitigation measures.

Mitigation Measures: Implementation of Mitigation Measures MM 4.1-1 and MM 4.1-2 would be required.

Level of Significance: With the implementation of the stated mitigation measures, impacts would be *less than significant*.

4.2 Agriculture and Forestry Resources

Introduction

This section of the Application discusses the affected environment and regulatory settings for agriculture and forest resources for the Project. It also describes the impacts on agricultural and forest resources that would result from the implementation of the Project, and includes mitigation measures that would reduce these impacts, where applicable.

Relevant information from the Executive Summary and Project Description (Section 1), Site Plan (Appendix A.1), Agriculture & Forestry Resources Assessment (Appendix D.3), Phase 1 Environmental Site Assessment (Appendix J.1), and the Soil & Geology Report (Appendix K.1), the 2024 Kern County Agricultural Crop Report (2024 Crop Report), data and geospatial maps from the California Department of Conservation (DOC), and the data, assessments, and maps from the California Department of Forestry and Fire Protection Fire and Resource Assessment Program (<http://frap.fire.ca.gov/>), State Water Resources Control Board (SWRCB) GeoTracker database and other published and online resources are discussed in this section.

CEC SPPE Appendix B requirements applicable to this resource area are addressed in Section 4.2.5 of this chapter.

CEC SPPE Appendix B — Applicability

Agriculture and Forestry Resources are not a separately enumerated resource area under CEC SPPE Appendix B, Section (g). Agricultural land impacts are evaluated under CEQA Appendix G criteria and the Kern County CEQA Implementation Document. The CEQA analysis is provided in Sections 4.2.1 through 4.2.4. A compliance cross-reference table is provided in Section 4.2.4 (Table 4.2-A).

4.2.1 Environmental Setting

Regional Characteristics

Kern County covers approximately 8,163 square miles (5,224,258 acres), making it the third largest county in California by land area. Based on U.S. Department of Agriculture National Agricultural Statistics Service data (2024), agricultural and forestry uses in Kern County are summarized in Table AF-001.

Table AF-001 USDA Agricultural and Forestry Land Use (2024)

Land Use Type	Acres
Cropland	994,576
Pastureland	1,291,112
Acres irrigated	817,526
Woodland	26,568
Other	87,256
Percentage of land in farms	34% of land

Source: U.S. Department of Agriculture National Agricultural Statistics Service, data from the most recent Census of Agriculture, 2022 Census of Agriculture (2022, which is the baseline for 2024 Projections).

In 2024, the County's agricultural gross production value fell to \$7.96 billion (U.S. Dollars), an 8% decrease from the record \$8.63 billion set in 2023. This decline was largely driven by extreme weather, including a mid-summer heat wave, and fluctuating market prices.

Table AF-002 2024 Acreage by Major Crop Category

The following table highlights the harvested or bearing acreage for the county’s primary agricultural commodities:

Crop Category	2024 Harvested/Bearing Acres	Change from 2023
Almonds	196,000	-13,000
Pistachios	163,000	+2,000
Grapes (All Varieties)	75,100	-14,400
Citrus (All Varieties)	71,900	+2,240
Cotton (All Varieties)	7,226	-2,365

Source: The 2024 Kern County Crop Report (released in late 2025) primarily details irrigated crop acreage, while the total, broader, or non-irrigated grazing acreage is typically updated in the USDA Census of Agriculture (next due in 2027).

Key trends impacting agricultural acreage utilization include:

- **Orchard Removals:** High costs and water scarcity led to significant orchard removals, particularly in almonds, which saw nearly 14,000 acres removed in the 2024 season.
- **Fallowing for Water:** An estimated 250,000 acres in Kern County may eventually be permanently fallowed or converted to non-irrigated uses due to groundwater pumping restrictions under the Sustainable Groundwater Management Act (SGMA).
- **Shift in Commodity Value:** Despite the acreage decline, citrus surpassed grapes as the top-valued commodity for the first time in decades, reaching a value of \$1.31 billion.

In 2024, nearly 17,000 acres of farmland were removed from production in Kern County, according to data from the Water Association of Kern County; key aspects of this conversion included:

- **Total Removed:** ~17,000 acres of farmland were taken out of production in 2024.
- **Future Projections:** Due to Sustainable Groundwater Management Act (SGMA) restrictions, as many as 250,000 acres in Kern County may need to be converted to non-irrigated, alternative uses in the coming years.
- **Crop-Specific Changes:** The 2024 report showed a decrease in permanent bearing acreage for major crops, including a reduction of 13,000 acres of almonds and over 14,000 acres of grapes.
- **Solar Development:** Large-scale solar Projects are driving some of this conversion, such as the proposed 12,785-acre Buttonbush Solar and Storage Project in the valley portion of the county.
- **Economic Impact:** Farmland values in the county dropped by as much as 47.6% in the first half of 2024 due to water shortages and groundwater pumping restrictions.

According to Kern Economic Development Corporation (KEDC), the total population of Kern County is projected to reach approximately 1,240,496 individuals in 2040 (Caltrans/Fresno COG projections, as referenced in KEDC, 2019), growing from today's population of approximately 916,464 (DOF, 2019). The anticipated growth in population would most likely decrease the amount of agricultural land in Kern County even further. However, it is important to note the conversion of agricultural land is affected by numerous factors other than population growth and urban development. Actual production is dependent on commodity prices, water prices and supply, labor, the proximity of processing and distribution facilities, and pest management. Factors such as weather, trade agreements, and labor disputes can also affect decisions regarding what crops are grown and which lands go in and out of production.

Local Characteristics

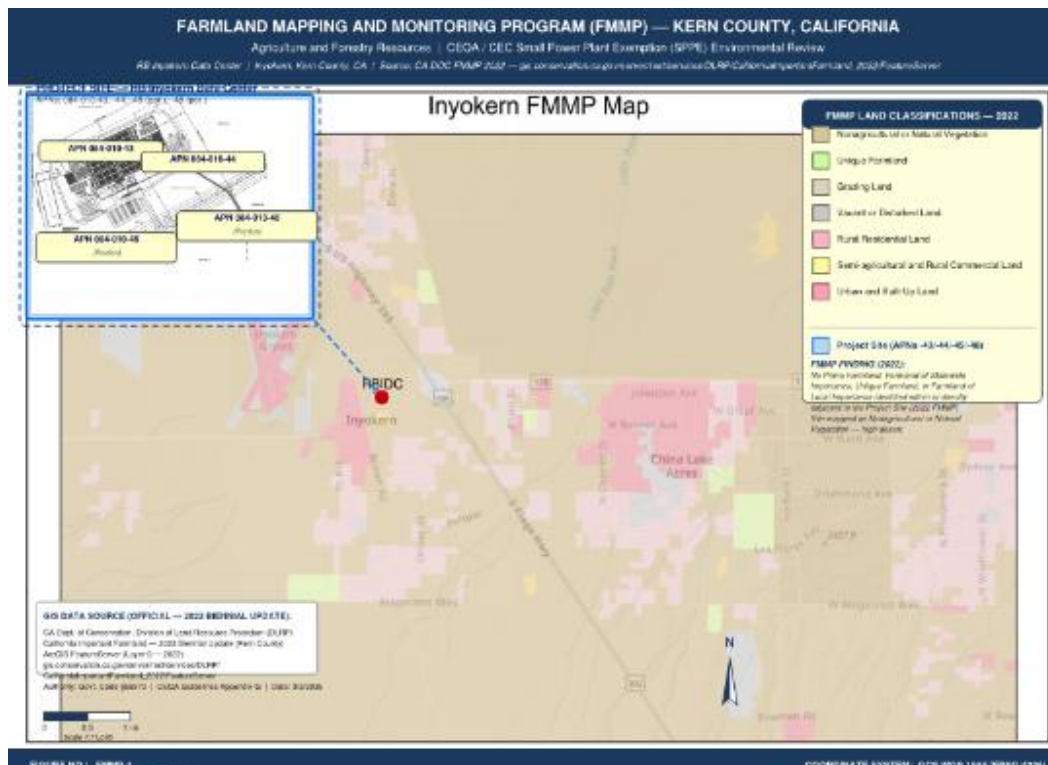
The Project Site is located in the northeastern portion of Kern County within the administrative boundaries of the Kern County General Plan and the Inyokern Specific Plan. The Project Site has a Land Use Element designation of 7.2/2.5 (Service Industrial/Flood Hazard) under the Kern County Inyokern Specific Plan, a subset of the Kern County General Plan, and a Kern County Zoning Ordinance designation of M-2 PD (Medium Industrial, Precise Development Combining) within Zone Map 27-29. The Flood Hazard overlay designation reflects the site's location within a Special Flood Hazard Zone A per FEMA Flood Insurance Rate Map (FIRM) mapping.

The Project Site is currently undeveloped open space and does not support agricultural uses. A wastewater treatment plant is located adjacent to the northeastern area of the Project Site. The Inyokern Airport and the RB Solar Project are located west and north, respectively, of the Project Site. An existing ~4.2-acre borrow pit is located to the east of the Project Site, which was originally used to build a roadway overpass.

Prime Farmland, Farmland of Statewide Importance, or Unique Farmland

The Project Site is not designated by the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. The DOC Farmland Mapping and Monitoring Program designates the Project Site as "Nonagricultural and Natural Vegetation," (DOC, 2026). This category covers heavily wooded, rocky or barren areas, riparian and wetland areas, grassland areas which do not qualify for grazing land due to their size or land management restrictions, and small water bodies. Constructed wetlands are also included in this category. Farmland Mapping and Monitoring Program (FMMP) land classification mapping for the Project area is provided below:

Figure AF-001: (RBIDC — FMMP Map 2026, dated 3/2/2026)



Williamson Act Land Use Contract

The Project Site is not under a Williamson Act Land Use contract (DOC, 2026). Williamson Act mapping for the Project Area, prepared by the Kern County Planning and Natural Resources Department, for the Project vicinity is provided below:

Figure AF-002 (Inyokern Williamson Act Map, dated 3/2/2026)



Timberland Production Zone (TPZ)

The Project Site is not zoned for forest land use, is not timberland, and is not within a Timberland Production Zone (TPZ).

Figure AF-003: (AF — Timberland Production Zone Map, dated 3/9/2026)

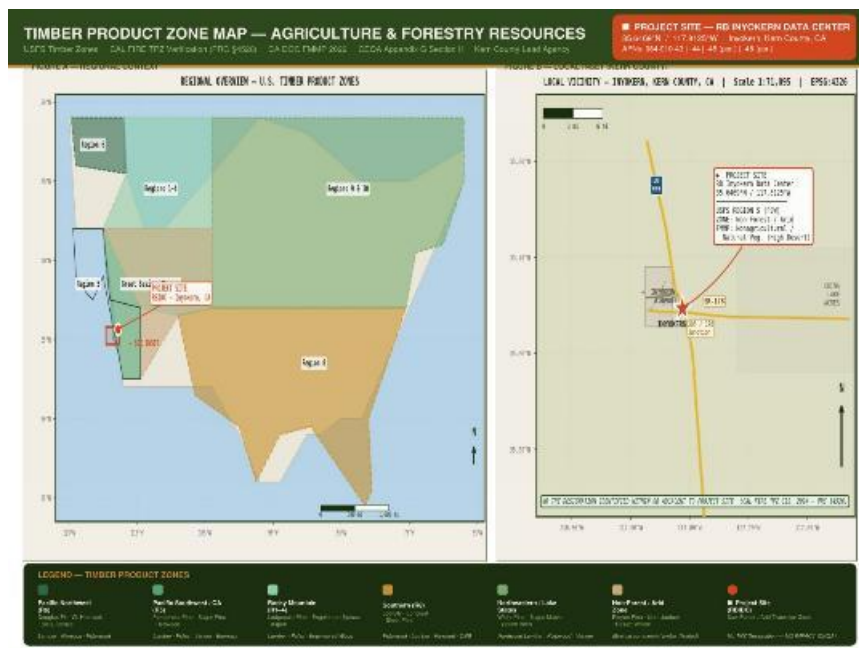


Figure AF-004: (AF — Timberland Production Zone Map, dated 3/9/2026)



Geology and Soils

As more particularly described in the Soil & Geology Report (Appendix K.1), the geology and soil characteristics of the Project Site relevant to agriculture and forestry characteristics are as follows:

Project Site Topography

The Project Site, located west of Brown Road and Highway 178 in the unincorporated community of Inyokern, Kern County, lies within the Indian Wells Valley in the western Mojave Desert. As described in the Soil & Geology Report (Appendix K.1), the Project Site elevation ranges from approximately 2,435 feet on the southern side to about 2,420 feet on the northern side, indicating a gentle northeast slope across the property. Regional topography generally trends southeast toward the Searles Basin; however, localized drainage within the Project area follows a northeast gradient. The overall grade is very mild, typically less than two percent, resulting in a nearly flat to gently sloping surface. This terrain combined with the arid high desert climate influences Site drainage and development considerations.

Project Site Surface Soils

Based on the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the Project Site is characterized as follows:

Table AF-003: Soil Information from USDA NRCS Web Soil Survey

Parameter	Value
Mojave Desert Area, Northwest Part, California — Map Unit 45: Typic Torriorthents and Typic Haplargids; Thermic Fan Piedmonts	
Map Unit Setting	
<i>National map unit symbol</i>	31qlk
<i>Elevation</i>	2,610 to 4,840 feet
<i>Mean annual precipitation</i>	5 to 8 inches
<i>Mean annual air temperature</i>	59 to 66 degrees F
<i>Frost-free period</i>	220 to 310 days
<i>Farmland classification</i>	Not prime farmland
Map Unit Composition	
<i>Typic torriorthents and similar soils</i>	40 percent
<i>Typic haplargids and similar soils</i>	35 percent
<i>Minor components</i>	25 percent
<i>Estimates</i>	Based on observations, descriptions, and transects of the map unit
Description of Typic Torriorthents — Setting	
<i>Landform</i>	Fan aprons
<i>Landform position (two-dimensional)</i>	Summit
<i>Down-slope shape</i>	Linear
<i>Across-slope shape</i>	Linear
<i>Parent material</i>	Alluvium derived from igneous rock

Parameter	Value
Typical Profile	
<i>A — 0 to 3 inches</i>	Gravelly sandy loam
<i>Ckq — 3 to 22 inches</i>	Very gravelly loamy coarse sand
<i>Ck — 22 to 43 inches</i>	Very gravelly coarse sand
<i>C'kq — 43 to 57 inches</i>	Very gravelly coarse sand
<i>Ctkq — 57 to 61 inches</i>	Very gravelly loamy coarse sand
Properties and Qualities	
<i>Slope</i>	2 to 8 percent
<i>Surface area covered with cobbles, stones, or boulders</i>	4.0 percent
<i>Depth to restrictive feature</i>	More than 80 inches
<i>Drainage class</i>	Somewhat excessively drained
<i>Ksat (most limiting layer)</i>	Moderately high to high (1.42 to 2.83 in/hr)
<i>Depth to water table</i>	More than 80 inches
<i>Frequency of flooding</i>	None
<i>Frequency of ponding</i>	None
<i>Calcium carbonate, maximum content</i>	5 percent
<i>Maximum salinity</i>	Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
<i>Available water supply, 0 to 60 inches</i>	Very low (about 2.0 inches)
Interpretive Groups	
<i>Land capability classification (irrigated)</i>	None specified
<i>Land capability classification (nonirrigated)</i>	7c

Parameter	Value
<i>Hydrologic Soil Group</i>	A
<i>Hydric soil rating</i>	Unranked
Description of Typic Haplargids — Setting	
<i>Landform</i>	Fan remnants
<i>Landform position (two-dimensional)</i>	Summit
<i>Down-slope shape</i>	Linear
<i>Across-slope shape</i>	Linear
<i>Parent material</i>	Alluvium derived from igneous and sedimentary rock
Typical Profile	
<i>A — 0 to 2 inches</i>	Fine sandy loam
<i>Bt — 2 to 14 inches</i>	Fine sandy loam
<i>Btk1 — 14 to 23 inches</i>	Fine sandy loam
<i>Btk2 — 23 to 38 inches</i>	Fine sandy loam
<i>BCkq — 38 to 47 inches</i>	Gravelly loamy sand
<i>Ckq — 47 to 63 inches</i>	Very gravelly coarse sand
Properties and Qualities	
<i>Slope</i>	1 to 4 percent
<i>Depth to restrictive feature</i>	More than 80 inches
<i>Drainage class</i>	Well drained
<i>Ksat (most limiting layer)</i>	Moderately high to high (1.42 to 2.83 in/hr)
<i>Depth to water table</i>	More than 80 inches
<i>Frequency of flooding</i>	None
<i>Frequency of ponding</i>	None

Parameter	Value
<i>Calcium carbonate, maximum content</i>	2 percent
<i>Maximum salinity</i>	Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
<i>Sodium adsorption ratio, maximum</i>	4.0
<i>Available water supply, 0 to 60 inches</i>	Low (about 5.7 inches)
Minor Components	
<i>Typic torripsamments — Percent of map unit</i>	15 percent — Fan aprons
<i>Calcic petrocalcids — Percent of map unit</i>	5 percent — Fan remnants
<i>Typic haplocalcids — Percent of map unit</i>	5 percent — Fan remnants
<i>Field observations</i>	Surface soils are primarily loose silty sand or sandy silt with occasional surface gravel.

Source: USDA NRCS Web Soil Survey (2026)

Groundwater Conditions

The Project Site is located within the Indian Wells Valley Groundwater Basin (Basin No. 6-054), part of the South Lahontan Hydrologic Region. This closed, internally drained basin is bounded by the Sierra Nevada to the west, the Coso Range to the north, the Argus Range to the east, and the El Paso Mountains to the south. According to the California Department of Water Resources (CDWR) Bulletin 118, groundwater occurs primarily in Pleistocene to Holocene alluvial fan and lakebed deposits. The basin contains an upper aquifer with limited yield and generally poor water quality, and a lower aquifer that provides higher yields and better water quality. Average annual precipitation is low, approximately 4 to 6 inches, consistent with the arid high desert environment (CDWR, 2003).

In 1978, an amendment to the Water Code directed the California Department of Water Resources (DWR) to investigate the state's groundwater basins, define their boundaries, and identify basins "subject to critical conditions of overdraft" (Water Code Section 12924(a)). In 1980, DWR published Ground Water Basins in California: A Report to the Legislature in Response to Water Code Section 12924 (Bulletin 118-80), which characterized 11 groundwater basins in California as subject to critical conditions of overdraft. As defined in Bulletin 118-80, a basin is subject to critical conditions of overdraft when continuation of present water management practices would

probably result in significant adverse overdraft-related environmental, social, or economic impacts.

Overdraft is the condition of a groundwater basin or subbasin in which the amount of water withdrawn by pumping exceeds the amount of water that recharges the basin over a period of years, during which the water supply conditions approximate average conditions. Overdraft can be characterized by groundwater levels that decline over a period of years and never fully recover, even in wet years. Moreover, groundwater overdraft can cause adverse effects including chronic decline of groundwater levels, loss of stored groundwater, intrusion of seawater into coastal basins, land subsidence, degradation of water quality, and stream flow depletion, as well as increased pumping costs.

In January 2016, DWR released a list of 21 groundwater basins identified as subject to critical conditions of overdraft; including the Indian Wells Valley Groundwater Basin. The statutory deadline for a critically overdrafted basin to be managed under a Groundwater Sustainability Plan (GSP) or an alternative was January 31, 2020. After SGMA was enacted, new legislation was passed adding provisions to the Water Code and the Code of Civil Procedure (SB 226, AB 779, and AB 1390) that established new processes for future adjudications. Following an adjudication filed on June 16, 2021 captioned “*Indian Wells Valley Water District v. All Persons Who Claim a Right to Extract Groundwater in the Indian Wells Valley Groundwater Basin, etc., et al.*,” the GSP covering the Indian Wells Valley Basin (6-054) was approved by DWR on January 13, 2022. An approved GSP is one that satisfies the requirements of Sustainable Groundwater Management Act (SGMA) and substantially complies with the GSP Regulations. DWR may recommend corrective actions to address discrepancies, including measures to improve management or implementation of approved plans to better ensure they achieve sustainable groundwater management within the planning and implementation horizon.

Water Well Data

Data from the DWR was reviewed for wells monitored in the vicinity of the Project Site. No wells with groundwater level data are located directly within the Project Site; however, several wells nearby provide historical groundwater information. The shallowest and deepest recorded groundwater depths for these wells are summarized below:

Table AF-004: Groundwater Well Information

Well ID	Approx. Location	Ground Elevation (ft)	Shallowest Depth (ft)	Year	Deepest Depth (ft)	Year
356522N1178032W001	~0.25 mi NE of Site	2,424.78	212.0	1953	---	---

Well ID	Approx. Location	Ground Elevation (ft)	Shallowest Depth (ft)	Year	Deepest Depth (ft)	Year
26S39E30C001M	~0.57 mi WSW of Site	2,429.78	210.0	1944	246.56	1979
26S39E30F001M	~0.59 mi WSW of Site	2,436.78	220.0	1944	248.99	1989

Source: California Department of Water Resources Well Completion Report Map Application and GeoTracker database.

Groundwater depths in the vicinity of the Project Site have historically ranged from approximately 210 feet to nearly 249 feet below ground surface, based on records from 1944 to 1989. No recent groundwater measurements were available for these wells.

A search for nearby wells was conducted using the State Water Resources Control Board (SWRCB) GeoTracker database. The search identified a report dated July 17, 2019, for the former Beck Oil Facility located at 1109 S. Brown Road, ~0.40 miles southwest of the Project Site. The report indicates that the depth to groundwater beneath the Beck Oil Site is approximately 275 feet. Groundwater was not encountered in soil borings drilled to a depth of 110 feet at that location.

According to the DWR Well Completion Report Map Application, well WCR2018-008518, located at 1245 Broadway Street, ~0.25 miles southwest of the Project Site, reported a static water level of 292 feet below ground surface on April 10, 2018. The well was completed on the same date with a total depth of 596 feet and is classified as a public water supply well (CDWR, 2018).

4.2.2 Regulatory Setting

Federal

Farmland Protection Policy Act (FPPA) (7 United States Code (USC) Section 4201)

The purpose of the Farmland Protection Policy Act (FPPA) is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. It additionally directs federal programs to be compatible with State and local policies for the protection of farmland. Under the FPPA, the term "farmland" includes Prime Farmland, Unique Farmland, and Farmland of Statewide or Local Importance. Farmland that is subject to FPPA requirements does not have to be currently used as cropland. It can be forestland, pastureland, or other land but not urban and built-up land or water. FPPA assures that, to the extent possible, federal programs are administered to be compatible with State, and local units of government, and private programs and policies to protect farmland.

In 1981, Congress passed the Agriculture and Food Act (Public Law 97-98) which contained the FPPA, Subtitle I of Title XV, Section 1539-1549. The final rules and regulations were published in the Federal Register on June 17, 1994. Federal agencies are required to develop and review their policies and procedures related to implementing the FPPA every 2 years. The FPPA does not authorize the federal government to regulate the use of private or nonfederal land or, in any way, affect the property rights of owners. Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a Federal agency or rely on assistance from a federal agency (Natural Resources Conservation Service [NRCS], 2019).

State

California Department of Conservation (DOC), Division of Land Resource Protection

The DOC applies the NRCS soil classifications to identify agricultural lands. These agricultural designations are used in planning for the present and future of California's agricultural land resources. The DOC uses a minimum mapping unit of 10 acres; parcels that are smaller than 10 acres are absorbed into the surrounding classifications. The list below describes the categories mapped by the DOC (DOC, 2019a) through the FMMP. Collectively, lands classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are referred to as "farmland" and are defined as follows:

- **Prime Farmland.** Farmland that has the ideal combination of physical and chemical features. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields and long-term agricultural production. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Farmland of Statewide Importance.** Farmland that is similar to Prime Farmland but with minor shortcomings, such as greater slopes or lower moisture content. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Unique Farmland.** Land with lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include land that supports non-irrigated orchards or vineyards, as found in some climatic zones in California. The land must have been used for crops at some time during the four years prior to the mapping date.
- **Farmland of Local Importance.** Land that is important to the local agricultural economy, as determined by each county's board of supervisors and a local advisory committee.
- **Grazing Land.** Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups with an interest in grazing activities.

- **Urban and Built-Up Land.** Land that is developed with structures that have been built to a density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land supports residential, industrial, commercial, institutional, public administrative uses; railroad and other transportation yards; cemeteries; airports; golf courses; sanitary landfills; sewage treatment facilities; water control structures; and other developed uses.
- **Other Land.** Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Undeveloped and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act (California Government Code Section 51200-51297.4), is applicable to specific parcels within the State of California. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space uses in return for reduced property tax assessments. Private land within locally designated agricultural preserve areas is eligible for enrollment under a Williamson Act contract. The Williamson Act program is administered by the DOC, in conjunction with local governments that administer the individual contract arrangements with landowners. Participation in the Williamson Act program is dependent on County adoption and implementation of the program and is voluntary for landowners (DOC, 2019b).

Under the Williamson Act, a landowner commits the parcel to a 10-year period, during which time no conversion out of agricultural use is permitted. In return, the land is taxed at a rate based on the actual use (i.e., agricultural production), as opposed to its unrestricted market value. Each year the contract automatically renews unless a notice of nonrenewal or cancellation is filed. However, the application to cancel must be consistent with the criteria of the affected county or city. Nonrenewal or contract cancellation does not change a property's zoning. Participation in the Williamson Act program, which is voluntary for landowners, is dependent on a county's willingness to adopt and implement the program. The Williamson Act states that a board or council will, by resolution, adopt rules governing the administration of agricultural preserves. The rules of each agricultural preserve specify the allowed uses. Generally, any commercial agricultural use would be permitted within any agricultural preserve. In addition, local governments may identify compatible uses permitted under a permit (DOC, 2019b).

California Government Code Section 51238 states that, unless otherwise decided by a local board or council, the erection, construction, alteration, or maintenance of electric and communication facilities, as well as other facilities, are determined to be compatible uses within any agricultural preserve. Also, Section 51238 states that board of supervisors may impose conditions on lands or

land uses to be placed within preserves to permit and encourage compatible uses, in conformity with Section 51238.1.

Furthermore, under California Government Code Section 51238.1, a board or council may allow any use that without conditions or mitigations would otherwise be considered incompatible. However, this may occur only if that use meets the following conditions:

- The use would not significantly compromise the long-term agricultural capability of the subject contracted parcel or parcels on other contracted lands in agricultural preserves;
- The use would not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels on other contracted lands in agricultural preserves. Uses that significantly displace agricultural operations may be deemed compatible if they relate directly to the production of commercial agricultural products on the subject contracted parcel or parcels or neighboring lands, including activities such as harvesting, processing, or shipping; and
- The use would not result in the significant removal of adjacent contracted land from agricultural or open-space use.

Farmland Security Zone Act

The Farmland Security Zone Act is similar to the Williamson Act. It was passed by the California State Legislature in 1999 to ensure that long-term farmland preservation is part of public policy in the State. Farmland Security Zone Act contracts are sometimes referred to as "Super Williamson Act Contracts." Under the provisions of this act, a landowner who is already under a Williamson Act contract can apply for Farmland Security Zone status by entering into a contract with the county. Farmland Security Zone classification automatically renews each year for an additional 20 years. In return for a further 35 percent reduction in the taxable value of land and improvements (in addition to Williamson Act tax benefits), the owner of the property promises not to develop the property into nonagricultural uses.

Public Resources Code Section 21060.1

Public Resources Code Section 21060.1 uses the FMMP to define agricultural land for the purposes of assessing environmental impacts. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and analyze the conversion of such lands. The FMMP provides analysis pertaining to agricultural land use changes throughout California.

Fire and Resource Assessment Program

The California Department of Forestry and Fire Protection (CAL FIRE) identifies forest land, timberland, and lands zoned for timberland production that can (or do) support forestry resources. Forest Land is land that can support 10 percent native tree cover and allows for management of forest resources (California Public Resources Code Section 12220(g)); Timberland is land not owned by the federal government or designated as experimental forest land that is available for, and capable of, growing trees to produce lumber and other products, including Christmas trees (California Public Resources Code Section 4526); and Timberland Production is land used for growing and harvesting timber and compatible uses (Government Code Section 51104(g)). Programs such as CAL FIRE's Fire and Resource Assessment Program are used to identify whether forest land, timberland, or timberland production areas could be affected or are located on or adjacent to a Project Site.

Local

Kern County General Plan

The Kern County General Plan states that agriculture is vital to the future of Kern County and sets goals to protect important agricultural lands for future use and prevent the conversion of prime agricultural lands to other uses (e.g., industrial or residential). The Kern County General Plan includes four (4) designations for agricultural land:

- **8.1 Intensive Agriculture (minimum parcel size 20 acres gross):** Lands devoted to the production of irrigated crops or having potential for such use. Uses shall include, but are not limited to, the following: Irrigated cropland; orchards; vineyards; horse ranches; raising of nursery stock ornamental flowers and Christmas trees; fish farms' bee keeping ranch and farm facilities and related uses; one single-family dwelling unit; cattle feed yards; dairies; dry land farming; livestock grazing; water storage; groundwater recharge acres; mineral; aggregate; and petroleum exploration and extraction; hunting clubs; wildlife preserves; farm labor housing; public utility uses; and agricultural industries pursuant to provisions of the Kern County Zoning Ordinance, and land within development areas subject to significant physical constraints.
- **8.2 Resource Reserve (minimum parcel size 20 acres gross, except to a Williamson Act Contract/Farmland Security Zone Contract, in which case the minimum parcel size shall be 80 acres gross):** Lands devoted to areas of mixed natural resource characteristics including rangeland, woodland, and wildlife habitat which occur in an established County water district.
- **8.3 Extensive Agriculture (minimum parcel size 20 acres gross, except lands subject to a Williamson Act contract/Farmland Security Zone contract, in which case the minimum parcel size shall be 80 acres gross):** Lands devoted to uses involving large amounts of land with relatively low value-per-acre yields such as livestock grazing, dry-land farming, and woodlands.

- **8.5 Resource Management (minimum parcel size 20 acres gross, except lands subject to a Williamson Act contract/Farmland Security Zone contract, in which case the minimum parcel size shall be 80 acres gross):** Lands consisting primarily of open space containing important resource values, such as wildlife habitat, scenic values, or watershed recharge areas. These areas may be characterized by physical constraints, or may constitute an important watershed recharge area or wildlife habitat or may have value as a buffer between resource areas and urban areas. Other lands with this resource attribute are undeveloped, non-urban areas that do not warrant additional planning within the foreseeable future because of current population (or anticipated increase), marginal physical development, or no subdivision activity. Additionally, the designation of 8.5 (Resource Management) can be used for agricultural uses such as dry-land farming and ranch facilities.

The policies, goals, and implementation measures in the Kern County General Plan for agricultural resources applicable to the Project are provided below. The Kern County General Plan contains additional policies, goals, and implementation measures that are more general in nature and not specific to development such as the proposed Project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Chapter 1. Land Use, Open Space, and Conservation Element (1.9 Resource Goals and Policies):

- Goal 1: To contain new development within an area large enough to meet generous Projections of foreseeable need, but in locations which will not impair the economic strength derived from the petroleum, agriculture, rangeland, or mineral resources, or diminish the other amenities which exist in the County.
- Goal 2: Protect areas of important mineral, petroleum, and agricultural resource potential for future use.
- Goal 3: Ensure the development of resource areas minimize effects on neighboring resource lands.
- Goal 5: Conserve prime agriculture lands from premature conversion.
- Goal 6: Encourage alternative sources of energy, such as solar and wind energy, while protecting the environment.

- Policy 1: Appropriate resource uses of all types will be encouraged as desirable and consistent interim uses in undeveloped portions of the County regardless of general plan designation.
- Policy 7: Areas designated for agricultural use, which include Class I and II and other enhanced agricultural soils with surface delivery water systems, should be protected from incompatible residential, commercial, and industrial subdivision and development activities.
- Policy 12: Areas identified by the Natural Resources Conservation Service (NRCS) (formerly Soil Conservation Service) as having high range-Site value should be conserved for Extensive Agriculture uses or as Resource Reserve, if located within a County water district.
- Measure F: Prime agricultural lands, according to the Kern County Interim-Important Farmland 2000 map produced by the Department of Conservation, which have Class I or II soils and a surface delivery water system shall be conserved through the use of agricultural zoning with minimum parcel size provisions.

Kern County Zoning Ordinance

The Kern County Zoning Ordinance establishes basic regulations under which land is developed. This includes allowable uses, building setback requirements, and development standards. Pursuant to State law, the zoning ordinance must be consistent with the Kern County General Plan. The basic intent of the Kern County Zoning Ordinance is to promote and protect the public health, safety, and welfare via the orderly regulation of the land uses throughout the unincorporated area of the County. The zoning ordinance applies to all property in unincorporated Kern County, except land owned by the United States or any of its agencies.

The Project Site is within the M-2 (Medium Industrial) zoning district. Permitted uses within an M-2 Industrial zone are set forth in Sections 19.38.020 of the Kern County Zoning Ordinance and include residential uses, agricultural uses, recreation, entertainment, and tourist facilities, commercial uses, industrial uses, transportation facilities, utility and communications facilities, resource extraction and energy development uses, institutional, educational institutions, and miscellaneous uses. A County Conditional Use Permit (CUP) would be required in order to allow for the construction and operation of the proposed Project.

Williamson Act Standard Uniform Rules

Kern County has adopted a set of rules that identify compatible land uses within agricultural preserves established under the Williamson Act. The rules restrict uses on such land to agricultural

or other compatible uses. Agricultural uses include crop cultivation, grazing, commercial wind farms, livestock breeding, dairies, and uses that are incidental to these uses. Other compatible agricultural uses include those associated with public utilities (e.g., gas, electric, communications, water, and other similar public utilities). For purposes of this analysis, the conversion of agricultural land to a data center itself would be incompatible with the farming provisions necessary for Projects under Williamson Act contracts.

Inyokern Specific Plan

The entire Project Site is subject to the provisions of the Inyokern Specific Plan, which contains goals, policies, and standards that are compatible with those of the Kern County General Plan, but are unique to the specific needs of the Inyokern Area. There are no specific agriculture-related policies and measures contained in the Inyokern Specific Plan that are applicable to the Project. In Kern County, specific plans are used to implement goals, objectives, and policies of the General Plan in a more detailed and refined manner unique to a smaller area of the County. The Inyokern Specific Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the Project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

4.2.3 Impacts and Mitigation Measures

Methodology

The proposed Project's potential impacts to agriculture and forest resources have been evaluated using a variety of resources, including relevant information from the Site Plan (Appendix A.1), Agriculture & Forestry Resources Assessment (Appendix D.3), Phase 1 Environmental Site Assessment (Appendix J.1), and the Soil & Geology Report (Appendix K.1), the 2024 Kern County Agricultural Crop Report (2024 Crop Report), California Department of Conservation Farmland Mapping and Monitoring Program, California Department of Conservation Williamson Act (<http://www.conservation.ca.gov/dlrp/lca>), and the California Department of Forestry and Fire Protection Fire and Resource Assessment Program and other published online resources. Using the aforementioned resources and professional judgment, impacts were analyzed according to CEQA significance criteria described below.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a Project could have a significant adverse effect on agricultural resources. A proposed Project would have a significant impact on agriculture and forest resources if it would:

- (a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural uses;
- (b) Conflict with existing zoning for agricultural use or a Williamson Act Contract;
- (c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g));
- (d) Result in the loss of forestland or conversion of forestland to non-forest use;
- (e) Involve other changes in the existing environment, which, because of their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use; or
- (f) Result in the cancellation of an open space contract made pursuant to the California Land Conservancy Act of 1965 or Farmland Security Zone Contract for any parcel of 100 or more acres.

Project Impacts

Impact 4.2-1: Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural uses.

The 2022 FMMP designates the Project Site as Nonagricultural and Natural Vegetation, which includes uses such as grazing land, non-agricultural and natural vegetation, and vacant or disturbed lands (DOC, 2019a). The Project Site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance pursuant to the FMMP and has not been used for agricultural uses within the past 38 years of FMMP record (beginning 1988, when the site was first evaluated and classified as Nonagricultural and Natural Vegetation in every biennial update through 2022). Farmland Mapping and Monitoring Program (FMMP) land classification mapping for the Project vicinity is provided in **Figure AF-001: (RBIDC — FMMP Map 2026, dated 3/2/2026)**. Note that the Natural Resources Conservation Service (NRCS) Web Soil Survey information indicates soils in the Project area are classified as “Not prime farmland.”

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: *Less than significant.*

Impact 4.2-3: Would the Project conflict with existing zoning for agricultural use or a Williamson Act Contract.

The Project Site is within the M-2 (Medium Industrial) zone district, which lists agricultural uses as permitted under Section 19.38.020 of the Kern County Zoning Ordinance; however, there are no agricultural uses in or adjacent to the Project Site, and the site has not been used for agricultural purposes within the FMMP record. The Project Site is not subject to a Williamson Act contract. The closest land that is subject to a Williamson Act contract is located approximately 7.5 miles east of the Project Site, near the City of Ridgecrest.

Williamson Act mapping for the Project vicinity is provided in **Figure AF-002 (Inyokern Williamson Act Map, dated 3/2/2026)** prepared by the Kern County Planning and Natural Resources Department.

Mitigation Measures: No mitigation measures are required.

Level of Significance: *Less than significant.*

Impact 4.2-3: Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).

As noted above, the Project Site is within the M-2 (Medium Industrial) zone district. The Project Site is not situated on, or in the vicinity of, forestland, timberland, or lands zoned for forest or timberland production and would therefore not conflict or result in rezoning of forestland or timberland or the loss of forestland to non-forest use. The Project Site and the surrounding properties are not zoned as forest land.

Under the Kern County Zoning Ordinance, land designated for timber and forest resources is primarily managed under Extensive Agriculture (8.3) or specialized resource zones, focusing on conservation, timber harvesting, watershed management, and low-density uses. These areas generally require large minimum parcel sizes (20–80+ acres) and support activities such as forestry, grazing, and wildlife habitat preservation. The Project Site is not zoned for Extensive Agriculture (8.3) or specialized resource zones. The Project Site is not zoned for forest land use, is not timberland, and is not within a Timberland Production Zone (TPZ).

Mitigation Measures: No mitigation measures are required.

Level of Significance: *Less than significant.*

Impact 4.2-4: Would the Project result in the loss of forestland or conversion of forestland to non-forest use.

The Project Site is not situated on, or in the vicinity of, forestland, timberland, or lands zoned for forest or timberland production and would therefore not conflict or result in rezoning of forestland or timberland or the loss of forestland to non-forest use. Moreover, the Project Site has not and is not used for forestland uses. The Project site is not zoned for forest land use, is not timberland, and is not within a Timberland Production Zone (TPZ). See **Figure AF-003: (AF — Timberland Production Zone Map, dated 3/9/2026)** and **Figure AF-004: (AF — Timberland Production Zone Map, dated 3/9/2026)**.

Mitigation Measures: No mitigation measures are required.

Level of Significance: *Less than significant.*

Impact 4.2-5: Would the Project involve other changes in the existing environment, which, because of their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use.

Kern County's Zoning Ordinance, primarily under Title 19, protects farmland through exclusive agricultural zones (A) with 20-acre minimum parcel sizes (or 80 acres under specific General Plan designations). Limited Agriculture (A-1) zones allow for a mix of residential and farming uses, while the ordinance regulates development to ensure compatibility with farming.

- Zone A (Exclusive Agriculture): Dedicated to agricultural uses and compatible activities. Minimum parcel size is typically 20 acres, increasing to 80 acres if under Williamson Act contract or designated 8.3; or
- Zone A-1 (Limited Agriculture): Designed for a combination of estate-type residential development, small-scale agricultural uses, and other compatible uses.

As noted above, the Project Site is within the M-2 PD (Medium Industrial, Precise Development Combined District) zone district. The Project Site is not situated on, or in the vicinity of, lands zoned for farmland production or forest land and would therefore not conflict or result in rezoning of farmland or the conversion of farmland to non-forest use.

Mitigation Measures: No mitigation measures are required.

Level of Significance: *Less than significant.*

Impact 4.2-6: Would the Project result in the cancellation of an open space contract made pursuant to the California Land Conservancy Act of 1965 or Farmland Security Zone Contract for any parcel of 100 or more acres.

The Project Site is not subject to an open space contract under the California Land Conservancy Act of 1965 or Farmland Security Zone Contract and the Project would not result in cancellation of any open space contract made under these statutes. Further, the Project Site is less than 100 acres, consisting of approximately 50 acres of M-2 (Medium Industrial) zoned land.

Mitigation Measures: No mitigation measures are required.

Level of Significance: *Less than significant.*

4.2.4 Mitigation Measures

No mitigation measures are required for Agriculture and Forestry Resources. The Project would result in no impact to agricultural and forestry resources.

Table 4.2-A CEC SPPE Appendix B Compliance Cross-Reference — Agriculture and Forestry Resources

Ref.	Appendix B Requirement	Section / Table	Status
N/A	Agriculture and Forestry Resources are not listed as a specific CEC SPPE Appendix B, Section (g) resource area. CEQA significance findings are provided in Section 4.2.3.	Section 4.2.3	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B. Agriculture and Forestry Resources are not a separately enumerated resource area under Section (g). All CEQA significance criteria are addressed in Section 4.2.3 of this chapter.

4.2.5 CEC SPPE Appendix B — Additional Agriculture and Forestry Resources Disclosure Requirements

This section provides the additional Agriculture and Forestry Resources disclosure information required by CEC SPPE Appendix B. This information supplements the CEQA impact analysis provided in Sections 4.2.1 through 4.2.4 above. Agriculture and Forestry Resources are not a separately enumerated resource area under CEC SPPE Appendix B, Section (g). Accordingly, no additional Appendix B technical disclosure requirements beyond the CEQA analysis presented in this chapter apply to this resource area. The CEQA analysis in Sections 4.2.1 through 4.2.4 constitutes the full required disclosure for this resource area.

4.2.6 Cumulative Setting, Impacts and Mitigation Measures

In general, the scope for assessing cumulative impacts on agricultural and forest resources is Kern County as a whole, due to the County's contribution to agricultural production in the state. As discussed previously, farming involves 34% of the land in Kern County and in 2024 agriculture and forestry production is a major industry driver for the County comprising \$7.96 billion (U.S. Dollars) of economic productivity; an 8% decrease from the record \$8.63 billion set in 2023, noting that the decline was largely driven by extreme weather, including a mid-summer heat wave, and fluctuating market prices.

More specifically, the geographic scope for cumulative agricultural and forest impacts with respect to the Project is considered the Indian Wells Valley because the land within the region possesses relatively similar agricultural opportunities, soil conditions, climate, and water availability. As shown in Table AF-005 below, there are approximately 11 projects developed or proposed throughout the Indian Wells Valley in Kern County.

Table AF-005: Cumulative Projects List

#	Project Name	Type	Key Cumulative Overlap with Proposed Project
1	RB Inyokern Solar Project	Utility Solar PV	Land disturbance, biological resources, visual, groundwater, EKAPCD air quality
2	Inyokern 1203 Community Solar Farm	Community Solar PV	Electrical grid/SCE interconnection, land use compatibility, visual
3	Windhub Solar Project	Utility Solar PV	Land disturbance, biological, visual, groundwater, cumulative energy infrastructure
4	Pappas Solar Project	Utility Solar PV (NOP Mar 2026)	Land disturbance, biological, visual, groundwater, EKAPCD — most recent addition
5	IWVGA Imported Water Pipeline	Water Supply Infrastructure	Groundwater/SGMA, land disturbance, biological, traffic (construction), cumulative water demand
6	Edwards AFB Solar Project	Utility Solar PV	Land disturbance, biological, visual, Mojave Desert habitat fragmentation
7	SR-178 Rehab — Segment 1 (09-38331)	Transportation	Construction traffic, fugitive dust, noise, access corridor impacts
8	SR-178 Rehab — Segment 2 (09-38330)	Transportation	Construction traffic, fugitive dust, noise, access corridor impacts

9	SR-14 Shoulder Widening (09-39140)	Transportation	Construction traffic, fugitive dust, noise — primary IWW access corridor
10	Mojave Life of Mine Reclamation (CalPortland)	Mining/Quarry	Fugitive dust, biological, land disturbance, haul truck traffic on SR-14/58
11	Coso Geothermal Complex (Units 1–3)	Geothermal — Existing Baseline (430 MW)	Groundwater (geothermal brine reinjection), air quality baseline (H ₂ S/NO _x), cumulative energy/grid, noise baseline — existing operating facility since 1987–1991

Notes: All projects listed above were independently verified through publicly accessible sources including the Kern County Planning & Natural Resources Department portal (kernplanning.com), the California State Clearinghouse (CEQAnet), and Caltrans District 9. Project statuses are current as of the date of this analysis.

As noted above, the RB Inyokern Solar Project (Project 1) which includes the Inyokern 1203 Community Solar Farm (Project 2) are independent projects. The RB Inyokern Solar Project (Project 1) is a 32 MW, ~237-acre utility solar project in Kern County, California. The Inyokern 1203 Community Solar Farm (Project 2) is a 44 MW, ~237-acre community solar project in Kern County, California, which came online on January 1, 2025. Together, Projects 1 and 2 are the most proximate projects to the Project Site and both abut the northern perimeter of the data center Project Site. Similar to the present Project, according to the discussion in the draft EIR of these projects relating to Impact 4.2-1, the projects “would not directly or indirectly impact farmland. The project site is vacant, undeveloped, and does not support agricultural uses. The 2022 FMMP designates the project site as Nonagricultural and Natural Vegetation, which includes uses such as grazing land, non-agricultural and natural vegetation, and vacant or disturbed lands (DOC, 2019a). The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance pursuant to the FMMP and has not been used for agricultural uses within the past 4 years. The project site is within the M-2 (Medium Industrial) zone districts, that includes agricultural as a permitted use as set forth in Sections 19.38.020 of the Kern County Zoning Ordinance. However, there are no agricultural uses in or adjacent to the project site. Therefore, the use of solar facilities in the project site would not result in the direct or indirect conversion of agricultural land to nonagricultural land, and impacts would be less than significant.”

Additionally, both the draft CEQA Initial Study and subsequent Notice of Preparation of an Environmental Impact Report and Notice of Public Scoping Meetings both published in July 2023 for the IWVGA Imported Water Pipeline (Project 5) determined that there would be no impact to agricultural and forestry resources. The IWVGA project is a planned imported water pipeline involving a 24” diameter, 50-mile imported water pipeline, three booster pump stations, and a regulating station starting from the Antelope Valley-East Kern Water Agency (AVEK) California City Feeder pipeline in California City to the Indian Wells Valley Water District’s (IWVWD) Ridgecrest Heights Water Storage Tank southwest of Ridgecrest. The three proposed booster pump stations and proposed regulation station would be necessary to pump the water over the El Paso Mountains located between California City and Ridgecrest. The pipeline would terminate at a new receiving water storage tank at IWVWD’s Ridgecrest Heights Storage Tank

Facility. The data center Project Site is located approximately 10 to 15 miles north of the northern edge of the El Paso Mountains, approximately 42 miles from the City of California City, and 12 miles from the City of Ridgecrest.

Although the Project would create an industrial use on undeveloped land, the proposed Project would not result in the loss of farmland or forestry land. The Project Site is zoned industrial and the Kern County Zoning Ordinance does not permit commercial agriculture in industrial zones. Any use of the property for agriculture would require a Specific Plan amendment, zone change, and CEQA analysis addressing the current serious water overdraft in the Indian Wells Valley Groundwater Basin.

Therefore, the proposed Project, in conjunction with Projects 1, 2, and 5 discussed above, would not contribute to cumulative impacts related to agriculture and forestry in the Indian Wells Valley region of Kern County. Cumulative impacts to agriculture and forestry resources would be *less than significant*.

Each of the cumulative projects identified in Table AF-005 and Appendix N.3 (Cumulative Projects and Cumulative Impacts Analysis) will be subject to its own CEQA review and applicable regulatory requirements. The Project conforms to the goals and policies of the Kern County General Plan and the Inyokern Specific Plan with respect to agricultural and forestry resources.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Cumulative impacts would be *less than significant*.

4.3 AIR QUALITY

This section of the Application describes the affected environment and regulatory setting relating air quality for the Project. This section evaluates the short- and long-term air quality characteristics and Project and cumulative impacts associated with development of the Project and, where necessary, mitigation measures are provided to avoid or lessen the impacts of the Project.

The proposed Project's potential impacts have been evaluated using relevant information from the Project Description, Site Plan (Appendix A.1), the Generator Data & Specifications (Appendix A.3), the Air Quality Impact & GHG Analysis (AQIA) prepared for the Project (Appendix F.1), the Trip Generation Report (H.1), the LORS Compliance Matrix (N.1), the Supporting Supplemental Maps (Appendix N.2), the Cumulative Projects & Cumulative Impacts Analysis (Appendix N.3), the Environmental Sustainability and Best Management Practices report (Appendix O.1), and other background research materials.

The AQIA was prepared pursuant to the EKAPCD's Guidelines for Implementation of the California Environmental Quality Act of 1970 (EKAPCD 1999), EKAPCD Policy, "Addendum to CEQA Guidelines Addressing GHG Emission Impacts for Stationary Source Projects When Serving As Lead CEQA Agency" (EKAPCD 2012), the California Environmental Quality Act (CEQA) (Public Resources Code 21000 to 21189) and the CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387). The AQIA also meets the requirements and is consistent with California Energy Commission Appendix B (Application for Small Power Plant Exemption), Section (g)(8)(A-K).

CEC SPPE Appendix B — Section (g)(8) Applicability

California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(8) requires an Air Quality analysis and disclosure including:

- (A) A description of the air quality setting, including regional and local air quality conditions and applicable air quality standards;
- (B) An identification of existing and projected air quality violations and attainment status for all applicable criteria pollutants;
- (C) A description and quantification of all air pollutant emissions associated with the construction and operation of the facility;
- (D) An assessment of whether the project would cause or contribute to a violation of any applicable air quality standard;
- (E) An assessment of health risks to sensitive receptors from hazardous air pollutants including diesel particulate matter;
- (F) A description of all measures proposed to mitigate air quality impacts to less-than-significant levels;
- (G) An assessment of greenhouse gas emissions and consistency with applicable GHG reduction programs;

- (H) An assessment of Valley Fever and naturally occurring asbestos exposure risks; and
- (I) Consistency with local, state, and federal air quality plans and regulations.

All Section (g)(8) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.3.1–4.3.4. The Appendix B supplemental disclosure is provided in Section 4.3.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.3-A, immediately preceding Section 4.3.4.

4.3.1 Environmental Setting

Regional Setting

The California Air Resources Board (CARB) has divided California into regional air basins according to topographic features. The Project Site is under the jurisdiction of EKAPCD and is located within the northwestern portion of the EKAPD's Mojave Desert Air Basin (MDAB). The MDAB includes the eastern half of Kern County, the northern part of Los Angeles County, most of San Bernardino County except for the southwest corner, and the eastern edge of Riverside County. The MDAB is separated from the South Coast Air Basin to the south by the San Gabriel and San Bernardino Mountains and separated from the San Joaquin Valley to the northwest by the Tehachapi Mountains and the southern end of the Sierra Nevada Mountains.

Topography

Air pollution, especially the dispersion of air pollutants, is directly related to a region's topographic features. Air quality is a function of both the rate and location of pollutant emissions and the meteorological conditions and topographic features that influence pollutant movement and dispersal. Atmospheric conditions such as wind speed, wind direction, atmospheric stability, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, which affects ambient air quality.

The Project Site is located at the western portion of Indian Wells Valley, in the unincorporated community of Inyokern, in the northeastern portion of Kern County. The Project Site is located approximately 5.5 miles west of the City of Ridgecrest and is within the western Mojave Desert. Indian Wells Valley is bounded by Owens Valley to the north and the Garlock Fault within the El Paso Mountains to the south. The Mojave Desert is bordered on the southwest by the San Bernardino Mountains, separated from the San Gabriel Mountains by the Cajon Pass (4,200 feet above mean sea level [amsl]). A lesser valley lies between the San Bernardino Mountains and the Little San Bernardino Mountains (the Morongo Valley). The Palo Verde Valley portion of the Mojave Desert lies in the low desert, at the eastern end of a series of valleys (notably the Coachella Valley) whose primary channel is the San Gorgonio Pass (2,300 feet amsl) between San Bernardino and San Jacinto Mountains.

As indicated above, the Project Site is under the jurisdiction of EKAPCD and is located within the northwestern portion of the EKAPD's Mojave Desert Air Basin (MDAB). The MDAB is characterized by hot summers, cold winters, large diurnal ranges in temperature, low relative humidity, and irregular rainfall. The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest, due to the proximity of the MDAB to the Pacific Ocean and the blocking nature of the Sierra Nevada Mountains to the north. Air masses pushed onshore in southern California by differential heating are channeled through the MDAB. The MDAB is separated from the southern California coastal and central California valley regions by mountains (highest elevation approximately 10,000 feet amsl), the passes of which form the main channels for these air masses.

During the summer, the MDAB is generally influenced by a Pacific Subtropical High cell that sits off the coast to the west, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. Temperatures in the Inyokern community range from a high of 102.7 degrees Fahrenheit in July to a low below freezing of 30.2 degrees Fahrenheit in December. Average rainfall is approximately 4.17 inches annually (WRCC, 2020). The MDAB averages between 3 and 7 inches of precipitation per year (from 16 to 30 days with at least 0.01 inch of precipitation). The MDAB is classified as a dry-hot desert climate, with portions classified as dry-very hot desert, which indicates at least three months have maximum average temperatures over 100.4 degrees Fahrenheit.

Climate

The climate of the Project area is a continentally modified Mediterranean type, characterized by cool, wet winters and hot, dry summers. Temperatures during the summer drop to the mid to lower 50s and rise to the upper 80s (Fahrenheit). In winter, the average high temperatures reach into the upper 50s, and the average low temperatures drop into the mid-30s. The mean annual precipitation in Inyokern averages between 5 and 6 inches, the bulk of which falls during the period November through March. The highest monthly precipitation totals occur in February (approx. 1.1–1.2 inches) and snowfall is light and sporadic, primarily occurring between December and March. Total annual snowfall averages 0.6 inches. The area experiences a distinct dry period, often spanning from April to November, with minimal rainfall.

Meteorological data for various monitoring stations is maintained by the Western Regional Climate Center. Meteorological data for the Project Site is expected to be similar to the data recorded at the Inyokern monitoring station. This data is provided in **Table 4.3-1** (Restating AQIA Table 3-4), which contains average precipitation data recorded at the Inyokern monitoring station. Over the 72-year period from November of 1940 through December of 2012 (the most recent data available), the average annual precipitation was 4.17 inches.

Table 4.3-1 (Restating Table 0-1, AQIA): Invokern, California Weather Data

Period of Record Monthly Climate Summary for the Period 11/17/1940 to 12/27/2012													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	59.6	64.8	70.3	77.7	87.0	96.7	102.7	101.2	94.2	83.2	69.0	59.7	80.5
Average Min. Temperature (F)	30.8	34.6	38.7	44.3	52.9	60.5	66.2	64.6	58.1	48.2	37.3	30.2	47.2
Average Total Precipitation (in.)	0.74	0.95	0.55	0.17	0.07	0.02	0.16	0.22	0.20	0.10	0.38	0.59	4.17
Average Total SnowFall (in.)	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Western Regional Climate Center, 2026. Notes: Percent of possible observations for period of record: Max. Temp.: 96%; Min. Temp.: 95%; Precipitation: 96.8%; Snowfall: 96.6%; Snow Depth: 96.3%

Detailed meteorological data for the Project area — including quarterly wind frequency tables, wind roses, mixing heights, and upper atmospheric sounding data from the Edwards Air Force Base monitoring station — are provided in the AQIA (Appendix B). These data characterize the prevailing wind patterns, atmospheric stability, and vertical mixing conditions that govern pollutant dispersion in the Project vicinity and were used as meteorological input to the AERMOD dispersion model as described in Section 4.3.3.

4.3.2 Climate Change and Greenhouse Gases

Climate Change and Greenhouse Gases

Global Climate Change

“Global climate change” refers to changes in average meteorological conditions on the earth with respect to temperature, precipitation, and storms, lasting for decades or longer. The term “global climate change” is often used interchangeably with the term “global warming,” but “global climate change” is preferred by some scientists and policymakers to “global warming” because it helps convey the notion that in addition to rising temperatures, while other changes in global climate may occur. Climate change may result from the following influences:

- Natural factors, such as changes in the sun’s intensity or slow changes in the Earth’s orbit around the sun.
- Natural processes within the climate system (e.g., changes in ocean circulation).
- Human activities that change the atmosphere’s composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, and desertification).

As determined from worldwide meteorological measurements between 1990 and 2005, the primary observed effect of global climate change has been a rise in the average global tropospheric temperature of 0.36 degrees Fahrenheit (°F) per decade. Climate change modeling shows that further warming could occur, which could induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns, or more energetic aspects of extreme weather (e.g., droughts, heavy precipitation, heat waves, extreme cold, and increased intensity of tropical cyclones). Specific effects from climate change in California may include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in the Sacramento-San Joaquin River Delta.

Human activities, including fossil fuel combustion and land use changes, release carbon dioxide (CO₂) and other compounds cumulatively termed greenhouse gases. Greenhouse Gases (GHGs) are effective at trapping radiation that would otherwise escape the atmosphere. This trapped radiation warms the atmosphere, the oceans, and the earth's surface (USGCRP, 2014). Many scientists believe most of the warming observed over the last 50 years is attributable to human activities" (IPCC, 2014). The increased amount of CO₂ and other GHGs in the atmosphere is the alleged primary result of human-induced warming.

GHGs are present in the atmosphere naturally, released by natural sources, or formed from secondary reactions taking place in the atmosphere. They include CO₂, methane (CH₄), nitrous oxide (N₂O), and O₃. In the last 200 years, substantial quantities of GHGs have been released into the atmosphere, primarily from fossil fuel combustion. These human-induced emissions are increasing GHG concentrations in the atmosphere, therefore enhancing the natural greenhouse effect. The GHGs resulting from human activity are believed to be causing global climate change. While human-made GHGs include CO₂, CH₄, and N₂O, some (like chlorofluorocarbons [CFCs]) are completely new to the atmosphere. GHGs vary considerably in terms of Global Warming Potential (GWP), the comparative ability of each GHG to trap heat in the atmosphere. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO₂, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO₂ equivalents" (CO₂e).

Natural sources of CO₂ include the respiration (breathing) of animals and plants and evaporation from the oceans. Together, these natural sources release approximately 150 billion metric tons of CO₂ each year, far outweighing the seven billion metric tons of GHG emissions from fossil fuel burning, waste incineration, deforestation, cement manufacturing, and other human activity. Nevertheless, natural GHG removal processes such as photosynthesis cannot keep pace with the additional output of CO₂ from human activities. Consequently, GHGs are building up in the atmosphere (Enviropedia, 2019).

Methane is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources of CH₄ production include wetlands, termites, and oceans. Human activity

accounts for the majority of the approximately 500 million metric tons of CH₄ emitted annually. These anthropogenic sources include the mining and burning of fossil fuels, digestive processes in ruminant livestock such as cattle, rice cultivation, and the decomposition of waste in landfills. The major removal process for atmospheric CH₄, the chemical breakdown in the atmosphere, cannot keep pace with source emissions; therefore, CH₄ concentrations in the atmosphere are rising.

Worldwide emissions of GHGs in 2008 were 30.1 billion metric tons of CO₂e and have increased considerably since that time (United Nations, 2011). Emissions from the top five emitting countries (China, the United States, India, the Russian Federation, and Japan) and the European Union accounted for approximately 70 percent of total global GHG emissions in 2014. The United States was the number two producer of GHG emissions, behind China. The primary GHG emitted by human activities was CO₂, representing approximately 80 percent of total GHG emissions (U.S. EPA, 2024).

In 2022, the United States emitted approximately 6,343.2 million metric tons of CO₂e. Between 1990 and 2022, CO₂ emissions from fossil fuel combustion decreased by 1.1 percent; emissions decreased by 18.2 percent (1,044.7 MMT CO₂e) from 2005 levels; and from 2021 to 2022, these emissions increased by 1.0 percent (45.1 MMT CO₂e). (U.S. EPA, 2024).

Worldwide, energy-related CO₂ emissions are expected to increase through 2050. Projections indicate that resources, demand, and technology costs will drive the shift from fossil to non-fossil energy sources, but current policies are not enough to decrease global energy-sector emissions. This outcome is largely due to population growth, regional economic shifts toward more manufacturing, and increased energy consumption as living standards improve. Globally, we Project increases in energy consumption to outpace efficiency improvements. China remains the primary source of energy-related CO₂ emissions through 2050 across all cases, although its share of total global CO₂ emissions despite a projected decline in its share of total global emissions as its economy shifts toward renewable energy. While emissions are anticipated to peak before 2030, China continues to dominate global totals, accounting for roughly 30% of global emissions in recent years. Further, India is expected to displace the United States and Other Asia-Pacific modeling regions to displace Western Europe as the second- and third-highest emitters of energy-related CO₂ emissions by 2050, respectively. (U.S. EIA, 2023).

CARB is responsible for developing and maintaining the California GHG emissions inventory. This inventory estimates the amount of GHGs emitted into and removed from the atmosphere by human activities within California and supports the Assembly Bill (AB) 32 Climate Change Program. As of late 2025, CARB's current greenhouse gas (GHG) emission inventory covers the years 2000–2023. This inventory is updated annually to include the most recent available data, typically with a two-year lag to allow for the compilation and verification of state, federal, and industry data and is based on fuel use, equipment activity, industrial processes, and other relevant data (e.g., housing, landfill activity, and agricultural lands).

In 2023, California's statewide greenhouse gas emissions were 360.4 MMT, continuing a steady decline from the 2022 level of 371.1 MMT, a 3.0% decrease. In 2022, emissions were 371.1 MMT, which was 9.3 MMT lower than in 2021. By 2022, emissions had decreased by 24% since their peak in 2004. Compared to the 1990 Baseline, the 2022 levels were 59.9 MMT below the

1990 level and the State's 2020 GHG limit of 431 MMT. The transportation sector remains the largest source of emissions but also saw the most significant reductions in 2023, falling by 4.6%. CARB estimates that transportation was the source of approximately 39 percent of California's GHG emissions in 2022, followed by industrial sources at 23 percent. Other sources of GHG emissions were electricity sources at 16 percent, residential plus commercial activities at 14 percent, and agriculture at 8 percent (CARB, 2024a).

Local Setting

The Project Site is located in the northeastern portion of Kern County within the administrative boundaries of the Kern County General Plan and the Inyokern Specific Plan. The Project Site is primarily designated for Service Industrial/Flood Hazard and zoned M-2 Medium-Industrial.

The Project Site is currently undeveloped open space. A wastewater treatment plant is located adjacent on the northeastern area of the Project Site. The Inyokern Airport and the RB Solar Project is located west and north, respectively, of the Project Site. An existing approximately 4.2-acre borrow pit is located on the eastern area of the Site, which was originally used to build a roadway overpass.

Sensitive Receptors

Sensitive receptors are locations or people considered to be more sensitive than others to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Residences, schools, hospitals, convalescent homes, and parks are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality.

Recreational users are also considered sensitive due to greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

The Project Site is located on approximately 50 acres of generally undeveloped land. Existing development in the Project vicinity includes a wastewater treatment plant, the Inyokern Airport, single family residences, and undeveloped, open space. Forest, parkland, and preserve areas in the vicinity of the Project Site include the Sequoia and Kings Canyon National Parks located approximately 20 miles northwest and the Kern River Preserve located approximately 50 miles to the west. The unincorporated community of Inyokern scattered residences located to the west and east of the Project Site. The China Lake Naval Air Weapons Station is located approximately 8 miles east of the Project Site.

There are nearby sensitive receptors, which include residential land uses located near the Project Site. The Inyokern Elementary School and the Inyokern Senior Center is located approximately 0.22 miles and 0.24 miles, respectively, to the southwest of the Project Site, and the nearest

residential receptors are located approximately 500 feet southwest of the Project Site west of Brown Road and east of the Project Site across United States 395 (US 395) and Clodt Road. Additional residential receptors are located to the south of the Project Site north and south of Sunset Avenue/Ward Avenue.

Air Quality Standards

The Project area is located within Kern County in the northeastern portion of the Mojave Desert Air Basin (MDAB or Basin) over which the EKAPCD has jurisdiction to regulate air pollutant emissions.

National Ambient Air Quality Standards (NAAQS) are EPA-set standards under the Clean Air Act to protect public health ("primary") and welfare ("secondary") from harmful air pollutants. They cover six criteria pollutants— particulate matter (PM), ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead. Recent NAAQS updates targeting fine particles (PM_{2.5}) were made in 2024. The CARB sets California Ambient Air Quality Standards (CAAQS) for the same six pollutants, as well as for the following four additional pollutants: Sulfates, Hydrogen Sulfide, Vinyl Chloride, and Visibility-Reducing Particles.

Responsibility for the regulation of air quality in California lies with the California Air Resources Board (CARB) and the 35 local air districts, with oversight responsibility held by the EPA. CARB is responsible for regulating mobile source emissions, establishing CAAQS, conducting research, managing regulation development, and providing oversight and coordination of the activities of the 35 air districts. The air districts are primarily responsible for regulating stationary source emissions and monitoring ambient pollutant concentrations. CARB also determines whether air basins, or portions thereof, are “unclassified,” in “attainment,” or in “non-attainment” for the NAAQS and CAAQS relying on statewide air quality monitoring data.

Under the provisions of the U.S. Clean Air Act, the Kern County portion of the SJVAB has been classified as non-attainment/extreme, non-attainment/severe, non-attainment, attainment/unclassified, attainment, or unclassified under the established NAAQS and CAAQS for various criteria pollutants. **Table 4.3-3** (Restating Table 3-2, AQIA) provides the MDAB’s designation and classification based on the various criteria pollutants under both NAAQS and CAAQS.

Federal and California Standards

The Project area is located within Kern County in the northeastern portion of the Mojave Desert Air Basin (MDAB or Basin) for which the EKAPCD has jurisdiction to regulate air pollutant emissions. **Table 4.3-2** (Restating Table 3-1, AQIA) set forth below provides the NAAQS and CAAQS standards.

**Table 4.3-2 (Restating Table 0-2, AQIA)
Federal and California Standards**

Pollutant	Averaging Time	NAAQS	CAAQS
		Concentration	
O ₃	8-hour	0.070 ppm (137 µg/m ³) ^a	0.070 ppm (137 µg/m ³)
	1-hour		0.09 ppm (180 µg/m ³)
CO	8-hour	9 ppm (10 µg/m ³)	9 ppm (10 µg/m ³)
	1-hour	35 ppm (40 µg/m ³)	20 ppm (23 µg/m ³)
NO ₂	Annual Average	53 ppb (100 µg/m ³)	0.030 ppm (57 µg/m ³)
	1-Hour	100 ppb (188.68 µg/m ³)	0.18 ppm (339 µg/m ³)
SO ₂	3-Hour	0.5 ppm (1,300 µg/m ³)	
	24 Hour	0.14 ppm (365 µg/m ³)	0.04 ppm (105 µg/m ³)
	1-Hour	75 ppb (196 µg/m ³)	0.25 ppm (655 µg/m ³)
Particulate Matter (PM ₁₀)	Annual Arithmetic Mean		20 µg/m ³
	24-Hour	150 µg/m ³	50 µg/m ³
Fine Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³
	24-Hour	35 µg/m ³	
Sulfates	24-Hour		25 µg/m ³
Pb ^d	Rolling Three-Month Average	0.15 µg/m ³	
	30 Day Average		1.5 µg/m ³
H ₂ S	1-Hour		0.03 ppm (42 µg/m ³)
Vinyl Chloride (chloroethene)	24-Hour		0.010 ppm (26 µg/m ³)
Visibility Reducing particles	8 Hour (1000 to 1800 PST)		
ppm = parts per million ppb = parts per billion		mg/m ³ = milligrams per cubic meter	µg/m ³ = micrograms per cubic meter
Source: CARB 2024b a. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm b. In 1989, CARB converted both the general statewide 10-mile visibility standards and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.			

Under the provisions of the U.S. Clean Air Act, the Kern County portion of the SJVAB has been classified as non-attainment/extreme, non-attainment/severe, non-attainment, attainment/unclassified, attainment, or unclassified under the established NAAQS and CAAQS for various criteria pollutants; although, as noted, the Project is located within the MDAB and not the SJVAB. The following **Table 4.3-3** provides the MDAB’s designation and classification based on the various criteria pollutants under both NAAQS and CAAQS.

**Table 4.3-3 (Restating Table 0-3, AQIA)
Federal and California Standards**

Pollutant	Designation/Classification			
	National Ambient Air Quality Standards (NAAQS)			
	EKAPCD	Kern River / Cummings Valley ^{1,2}	Indian Wells Valley ^{3,4,5}	State Ambient Air Quality Standards
Ozone – 1 Hour	Attainment ^{6,7}	Part of EKAPCD Area	Part of EKAPCD Area	Nonattainment
Ozone – 8 Hour ⁸	Serious Nonattainment	Part of EKAPCD Area	Unclassifiable/Attainment	Nonattainment
PM ₁₀	Unclassifiable/Attainment	Serious Nonattainment	Attainment Maintenance	Nonattainment
PM _{2.5}	Unclassifiable/Attainment	Part of EKAPCD Area	Part of EKAPCD Area	Unclassified
Carbon Monoxide	Unclassifiable/Attainment	Part of EKAPCD Area	Part of EKAPCD Area	Unclassified
Nitrogen Dioxide	Unclassified	Part of EKAPCD Area	Part of EKAPCD Area	Attainment
Sulfur Dioxide	Unclassified	Part of EKAPCD Area	Part of EKAPCD Area	Attainment
Lead Particulates	Unclassifiable/Attainment	Part of EKAPCD Area	Part of EKAPCD Area	Attainment

Source: EKAPCD 2018

Notes:

¹ Kern River Valley, Bear Valley, and Cummings Valley were previously included in the federally designated San Joaquin Valley PM₁₀ Serious Nonattainment Area but were made a separate Nonattainment area in 2008.

² Kern River Valley, Bear Valley, and Cummings Valley are included in EKAPCD for all NAAQS other than PM₁₀.

³ Indian Wells Valley is a separate planning area from the rest of EKAPCD for PM₁₀ NAAQS.

⁴ Indian Wells Valley is a separate area for the 1997 and 2008 8-hour ozone NAAQS (0.08 & 0.075 ppm).

⁵ Indian Wells Valley is included in EKAPCD for all NAAQS other than PM₁₀ and 8-hour ozone.

⁶ 1-hour ozone NAAQS was revoked effective June 15, 2004.

⁷ EKAPCD was in attainment for 1-hour ozone NAAQS at time of revocation; the proposed Attainment Maintenance designation's effective date was June 21, 2004, therefore it did not become effective

⁸ Attainment for 1997 8-hour Ozone NAAQS (0.08 ppm), Serious Nonattainment for 2008 NAAQS (0.075 ppm), and Nonattainment State 8-hour standard (0.070 ppm)

As noted above, the EKAPCD has been designated as unclassifiable/attainment for the NAAQS for CO, PM₁₀, PM_{2.5}, and Lead, serious nonattainment for the O₃ eight-hour average standard, attainment for the O₃ one-hour average standard and unclassified for NO_x and SO_x. A federal designation for hydrogen sulfide (H₂S) has not been made.

The EKAPCD has been designated as nonattainment for the state one-hour and eight-hour standards for O₃, and PM₁₀, unclassified PM_{2.5} and CO, and attainment for NO_x, SO_x, and Lead. A state designation for hydrogen sulfide (H₂S) has not been made.

Existing Air Quality

For the purposes of background data and this air quality assessment, this analysis relied on data collected in the last three years for the CARB monitoring stations that are located in closest proximity to the Project Site. The below **Table 4.3-4, (Restating Error! Reference source not found., AQIA)** provides the background concentrations for O₃, particulate matter of 10 microns

(PM₁₀), particulate matter of less than 2.5 microns (PM_{2.5}), CO, NO₂, Pb and H₂S as of 2024. Information is provided for the Ridgecrest-Ward, Trona-Anthol and Telegraph, Mojave – Pat Avenue, Mojave – CA 58 Business, Lancaster – Fairgrounds, and Barstow monitoring stations for 2022 through 2024. No data is available for CO, SO₂, Vinyl Chloride, or other toxic air contaminants in the MDAB.

Table 4.3-4 (Restating Table 3-3, AQIA)
Existing Air Quality Monitoring Data in Project Area

Pollutant and Monitoring Station Location	Maximum Concentration			Days Exceeding Standard		
	2022	2023	2024	2022	2023	2024
O₃ – 1-hour CAAQS (0.09 ppm)						
Trona-Athol and Telegraph	0.099	0.075	0.101	1	0	1
Mojave – Pat Avenue	*	0.086	0.089	*	0	0
Mojave – CA 58 Business	0.091	0.050	*	0	0	*
O₃ – 8-hour NAAQS (0.070 ppm)						
Trona-Athol and Telegraph	0.084	0.070	0.079	1	0	10
Mojave – Pat Avenue	*	0.077	0.080	*	12	20
Mojave – CA 58 Business	0.075	0.046	*	8	0	*
O₃ – 8-hour CAAQS (0.070 ppm)						
Trona-Athol and Telegraph	0.085	0.071	0.080	2	1	13
Mojave – Pat Avenue	*	0.078	0.080	*	12	26
Mojave – CA 58 Business	0.076	0.046	*	9	0	*
PM₁₀ – 24-hour CAAQS (50 µg/m³)						
Ridgecrest-Ward	381.7	167.8	106.9	11	4	4
Mojave – CA 58 Business	110.2	38.3	*	7	0	*
Mojave – Pat Avenue	*	65.0	91.0	*	2	9
PM₁₀ – 24-hour NAAQS (150 µg/m³)						
Ridgecrest-Ward	416.8	176.5	112.2	2	1	0
Trona-Athol and Telegraph	357.6	97.6	205.0	2	0	2
Mojave – Pat Avenue	*	70.3	101.5	*	0	0
PM_{2.5} - 24-hour NAAQS (35 µg/m³)						
Ridgecrest-Ward	32.3	13.3	38.9	0	0	1
Mojave – Pat Avenue	*	15.3	19.8	*	0	0
Mojave – CA 58 Business	10.9	7.4	*	0	0	*
CO - 8-Hour CAAQS & NAAQS (9.0 ppm)						
No data collected	*	*	*	*	*	*
NO₂ - 1-Hour CAAQS (0.18 ppm)						
Trona-Athol and Telegraph	0.041	0.043	0.044	0	0	0
Lancaster – Fairgrounds	*	0.034	0.042	*	0	0
Barstow	0.059	0.060	0.062	0	0	0
NO₂ - 1-Hour NAAQS (0.10 ppm)						
Trona-Athol and Telegraph	0.041	0.043	0.045	0	0	0
Lancaster – Fairgrounds	*	0.035	0.043	*	0	0
Barstow	0.060	0.060	0.062	0	0	0
SO₂ – 24-hour Concentration - CAAQS (0.04 ppm) & NAAQS (0.14 ppm)						
No data collected	*	*	*	*	*	*
Pb - Maximum 30-Day Concentration CAAQS (1500 ng/m³)						
Bakersfield – 5558 California Ave.	10.8	9.5	6.8	*	*	*
H₂S – 1-Hour CAAQS (0.03 ppm)						
Trona-Athol and Telegraph	0.097	0.143	0.207	81	90	131

Source: CARB 2026

Notes: ppm= parts per million

* There was insufficient (or no) data available to determine the value.

Criteria Air Pollutants

The following describes criteria air pollutants, typical sources, health effects, and recently documented pollutant levels in the Project area.

OZONE (O₃)

High concentrations of O₃, are known to cause eye irritation and impair respiratory functions. High levels of O₃ can also affect plants and materials. Grapes, lettuce, spinach, and many types of garden flowers and shrubs are particularly vulnerable to O₃ damage. O₃ is not directly emitted into the atmosphere; it is a secondary pollutant produced from a photochemical interaction between hydrocarbons and nitrogen oxides (NO_x). One to three hours of strong sunlight in a stable atmosphere creates O₃. The “O₃ season,” therefore, typically spans from April through October. O₃ is a regional pollutant; wind transports and diffuses the precursors while activating the photochemical reaction process. The data presented in **Table 4.3-4** (Restating Table 3-3, AQIA) shows that the Project area monitoring stations exceeded the 1-hour average ambient O₃ CAAQS and the 8-hour average ambient O₃ standards under NAAQS and CAAQS.

Health Effects

While ozone in the upper atmosphere protects the earth from UV-B, high concentrations of ground-level ozone can adversely affect the human respiratory system. Many respiratory ailments, as well as cardiovascular diseases, are aggravated by exposure to high ozone levels.

Ozone is a powerful oxidant—it can be compared to household bleach, which can kill living cells (such as germs or human skin cells) upon contact. Ozone can damage the respiratory tract, causing inflammation and irritation, and it can induce symptoms such as coughing, chest tightness, shortness of breath, and worsening of asthmatic symptoms. Ozone in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. Exposure to levels of ozone above the current ambient air quality standard leads to lung inflammation, lung tissue damage, and a reduction in the amount of air inhaled into the lungs. Health effects include potential increased susceptibility to respiratory infections and reduced ability to exercise. Health effects are more severe in people with asthma and other respiratory ailments. People who work or play outdoors are at a greater risk for harmful health effects from ozone. Children and adolescents are also at greater risk because they are more likely than adults to spend

SUSPENDED PARTICULATE MATTER (PM₁₀ AND PM_{2.5})

Both NAAQS and CAAQS now apply to particulates under 10 microns (PM₁₀). Since the smaller diameter fraction of total suspended particulates is documented to represent the greatest health hazard, EPA has established NAAQS for particulates under 2.5 microns (PM_{2.5}). The Project area is classified as attainment for PM₁₀ and non-attainment for PM_{2.5} for NAAQS.

Dust and fumes from industrial and agricultural operations generate particulate matter. Natural activities, such as wind-raised dust, fires, and ocean spray, also increase the level of particulates in the atmosphere. The largest source of PM10 and PM2.5 in Kern County is vehicle movement over paved and unpaved roads from demolition and construction activities and farming operations. PM10 and PM2.5 are considered regional pollutants, with elevated levels typically occurring over a wide geographic area. Concentrations tend to be highest in the winter, during periods of high atmospheric stability and low wind speed. Very small particulates may contain absorbed gases that produce injury to the respiratory tract. Particulates of aerosol size suspended in the air can both scatter and absorb sunlight, producing haze and reducing visibility. They can also damage a wide range of materials. **Table 4.3-4** (Restating Table 3-3, AQIA) shows that PM10 levels exceeded the CAAQS, and both PM10 and PM2.5 exceeded the NAAQS. Similar levels can be expected to occur in the vicinity of the Project Site.

Particulates of concern are those that are 10 microns or less in diameter (PM10) and those that are 2.5 microns or less in diameter. These are small enough to be inhaled, pass through the respiratory system and lodge in the lungs, possibly leading to adverse health effects.

Health Effects

The size of particles is directly linked to their potential for causing health problems. PM10 and PM2.5 particles are small enough—about one seventh the thickness of a human hair, or smaller—to be inhaled and lodged in the deepest parts of the lung where they evade the respiratory system's natural defenses and can be trapped in the nose, throat, and upper respiratory tract. Health effects from exposure to PM10 and PM2.5 begin as the body reacts to these foreign particles. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis, and respiratory illnesses in children. Recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. PM10 and PM2.5 can aggravate respiratory disease and cause lung damage, cancer, and premature death. Sensitive populations, including children, the elderly, exercising adults, and those suffering from chronic lung disease such as asthma or bronchitis, are especially vulnerable to the effect of PM10. Of greatest concern are recent studies that link PM10 exposure to the premature death of people who already have heart and lung disease, especially the elderly. Acidic PM10 can also damage manmade materials and is a major cause of reduced visibility in many parts of the United States. Non-health related effects include reduced visibility and soiling of buildings.

Premature deaths linked to particulate matter are now at levels comparable to deaths from traffic accidents and secondhand smoke. One of the most dangerous pollutants, fine particulate matter (e.g., from diesel exhaust) not only bypasses the body's defense mechanisms and becomes embedded in the deepest recesses of the lung but also can disrupt cellular processes. Population-based studies in hundreds of cities in the United States and around the world have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks. Long-term studies of children's health conducted in California have demonstrated that particulate pollution may significantly reduce lung function growth in children (CARB and ALA, 2007).

A recent study provides evidence that exposure to particulate air pollution is associated with lung cancer. This study found that residents who live in an area that is severely affected by particulate air pollution are at risk of developing lung cancer at a rate comparable to nonsmokers exposed to secondhand smoke. This study also found approximately 16 percent excess risk of dying from lung cancer due to fine particulate air pollution (Dockery and Pope, 2006).

Another study shows that individuals with existing cardiac disease can be in a potentially life-threatening situation when exposed to high levels of fine air pollution. Fine particles can penetrate the lungs and cause the heart to beat irregularly, or can cause inflammation, which could lead to a heart attack (Peters et al., 2001). Attaining the California particulate matter standards would annually prevent about 6,500 premature deaths, or 3 percent of all deaths. These premature deaths shorten lives by an average of 14 years. This is roughly equivalent to the same number of deaths (4,200 to 7,400) linked to secondhand smoke in 2000. In comparison, motor vehicle crashes caused 3,200 deaths, and 2,000 deaths resulted from homicide. Attaining the California particulate matter and ozone standards would annually prevent 4,000 hospital admissions for respiratory disease, 3,000 hospital admissions for cardiovascular disease, and 2,000 asthma-related emergency room visits. Exposure to diesel particulate matter (DPM) causes about 250 excess cancer cases per year in California.

CARBON MONOXIDE (CO)

Carbon monoxide (CO) is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. CO is an odorless, colorless, poisonous gas that is highly reactive. CO is a byproduct of motor vehicle exhaust, which contributes more than 66 percent of all CO emissions nationwide. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. These emissions can result in high concentrations of CO, particularly in local areas with heavy traffic congestion. Other sources of CO emissions include industrial processes and fuel combustion in sources such as boilers and incinerators. Despite an overall downward trend in concentrations and emissions of CO, some metropolitan areas still experience high levels of CO. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures.

Notably, CO concentrations normally correspond closely to the spatial and temporal distributions of vehicular traffic. Relatively high concentrations of CO would be expected along heavily traveled roads and near busy intersections. Wind speed and atmospheric mixing also influence CO concentrations.

Internal combustion engines, principally in vehicles, produce CO due to incomplete fuel combustion. Various industrial processes also produce CO emissions through incomplete combustion. Gasoline-powered motor vehicles are typically the major source of this contaminant. CO does not irritate the respiratory tract but passes through the lungs directly into the bloodstream, and by interfering with the transfer of fresh oxygen to the blood, deprives sensitive tissues of oxygen, thereby aggravating cardiovascular disease, causing fatigue, headaches, and dizziness. CO

is not known to have adverse effects on vegetation, visibility, or materials. **Table 4.3-4** (Restating Table 3-3, AQIA) reports insufficient data for the CO monitoring at any monitoring stations during the three-year period from 2022 through 2024.

Health Effects

When inhaled, CO enters the bloodstream and binds more readily to hemoglobin, the oxygen-carrying protein in blood, than oxygen, thereby reducing the oxygen-carrying capacity of blood and reducing oxygen delivery to organs and tissues. The health threat from CO is most serious for those who suffer from cardiovascular disease. Healthy individuals are also affected but only at higher levels of exposure. Exposure to CO can cause chest pain in heart patients, headaches, and reduced mental alertness. At high concentrations, CO can cause heart difficulties in people with chronic diseases and can impair mental abilities. Exposure to elevated CO levels is associated with visual impairment, reduced work capacity, reduced manual dexterity, poor learning ability, difficulty performing complex tasks, and, with prolonged enclosed exposure, death.

The adverse health effects associated with exposure to ambient and indoor concentrations of CO are related to the concentration of carboxyhemoglobin in the blood. Exposure to elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. Health effects observed may include an early onset of cardiovascular disease; behavioral impairment; decreased exercise performance of young, healthy men; reduced birth weight; sudden infant death syndrome; and increased daily mortality rate (Fierro et al., 2001).

NITROGEN DIOXIDE (NO₂) AND HYDROCARBONS

Oxides of nitrogen (NOX) are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone and reacts in the atmosphere to form acid rain. NOX is emitted from solvents and combustion processes in which fuel is burned at high temperatures, principally motor vehicle exhaust and stationary sources such as electric utilities and industrial boilers. In terms of NOX emissions, the two principal species of NOX are nitric oxide (NO) and nitrogen dioxide (NO₂), with the vast majority (95 percent) of the NOX emissions being comprised of NO. NO is converted to NO₂ by several processes, the two most important of these are: (1) the reaction of NO with ozone; and (2) the photochemical reaction of NO with hydrocarbons.

NO₂ is the "whiskey brown" colored gas readily visible during periods of heavy air pollution. Mobile sources account for nearly all the County's NO_x emissions, most of which are emitted as NO₂. Combustion in motor vehicle engines, power plants, refineries, and other industrial operations are the primary sources in the air basin. Railroads and aircraft are other potentially significant sources of combustion air contaminants. Oxides of nitrogen are direct participants in photochemical smog reactions. The emitted compound, nitric oxide, combines with oxygen in the atmosphere in the presence of hydrocarbons and sunlight to form NO₂ and O₃, corrosive nitric acid as well as toxic organic nitrates.

NO₂, the most significant of these pollutants, can color the atmosphere at concentrations as low as 0.5 ppm on days of 10-mile visibility. NO_x is an important air pollutant in the region because it

is a primary receptor of ultraviolet light, which initiates the reactions producing photochemical smog. It also reacts in the air to form nitrate particulates.

Motor vehicles are the major source of reactive hydrocarbons in the basin. Other sources include evaporation of organic solvents and petroleum production and refining operations. Certain hydrocarbons can damage plants by inhibiting growth and by causing flowers and leaves to fall. Levels of hydrocarbons currently measured in urban areas are not known to cause adverse effects in humans. However, certain members of this contaminant group are important components in the reactions which produce photochemical oxidants. **Table 4.3-4** (Restating Table 3-3, AQIA) shows that the NO₂ NAAQS and CAAQS were not exceeded over the three-year period of 2022 through 2024. Hydrocarbons are not currently monitored.

Health Effects

NO_x is an ozone precursor that combines with ROG to form ozone. See the ozone section above for a discussion of the health effects of ozone. Direct inhalation of NO_x can cause a wide range of health effects. Health effects of NO_x include irritation of the lungs, lung damage, and lowered resistance to respiratory infections such as influenza. Short-term exposures (e.g., less than 3 hours) to low levels of NO₂ may lead to changes in airway responsiveness and lung function in individuals with pre-existing respiratory illnesses. These exposures may also increase respiratory illnesses in children. Long-term exposures to NO₂ may lead to increased susceptibility to respiratory infection and may cause irreversible lung damage. Other health effects associated with NO₂ are an increase in the incidence of chronic bronchitis and lung irritation.

Chronic exposure to NO₂ may lead to eye and mucus membrane aggravation, along with pulmonary dysfunction. Clinical studies of human subjects suggest that NO₂ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children. Epidemiological studies have also shown associations between NO₂ concentrations and daily mortality from respiratory and cardiovascular causes as well as hospital admissions for respiratory conditions.

NO_x contributes to a wide range of environmental effects both directly and indirectly when combined with other precursors in acid rain and ozone. NO_x can cause fading of textile dyes and additives, deterioration of cotton and nylon, and corrosion of metals due to the production of particulate nitrates. Airborne NO_x can also impair visibility. Increased nitrogen inputs to terrestrial and wetland systems can lead to changes in plant species composition and diversity. Similarly, direct nitrogen inputs to aquatic ecosystems such as those found in estuarine and coastal waters can lead to eutrophication (a condition that promotes excessive algae growth, which can lead to a severe depletion of dissolved oxygen and increased levels of toxins harmful to aquatic life). Nitrogen, alone or in acid rain, also can acidify soils and surface waters. Acidification of soils causes the loss of essential plant nutrients and increased levels of soluble aluminum, which is toxic to plants. Acidification of surface waters creates conditions of low pH and levels of aluminum that are toxic to fish and other aquatic organisms. NO_x also contributes to visibility impairment (California Air Pollution Control Officers Association (CAPCOA), 2016a).

SULFUR DIOXIDE

Sulfates are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to sulfur dioxide (SO₂) during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO₂ to sulfates takes place comparatively rapidly and completely in urban areas of California because of regional meteorological features.

SO₂ is a colorless, irritating gas with a “rotten egg” smell that is formed primarily by the combustion of sulfur-containing fossil fuels. Historically, SO₂ was a pollutant of concern in Kern County, but with the successful implementation of regulations, the levels have been reduced significantly.

SO₂ is the primary combustion product of sulfur or sulfur-containing fuels. Fuel combustion is the major source of this pollutant, while chemical plants, sulfur recovery plants, and metal processing facilities are minor contributors. Gaseous fuels (natural gas, propane, etc.) typically have lower percentages of sulfur-containing compounds than liquid fuels such as diesel or crude oil. SO₂ levels are generally higher in the winter months. Decreasing levels of SO₂ in the atmosphere reflect the use of natural gas in power plants and boilers.

Table 4.3-4 (Restating Table 3-3, AQIA) shows no data has been reported over the three-year period.

Health Effects

High concentrations of SO₂ can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Health effects from exposure to emissions of SO₂ include aggravation of lung diseases, especially bronchitis, and constricting of breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. Short-term exposures of individuals to elevated SO₂ levels during moderate activity may result in health effects including breathing difficulties that can be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other health effects that have been associated with longer-term exposures to high concentrations of SO₂, in conjunction with high levels of particulate matter, include aggravation of existing cardiovascular disease, respiratory illness, and alterations in the lungs' defenses. SO₂ also is a major precursor to particulate matter that is 2.5 microns or less (PM_{2.5}), which is a significant health concern and a main contributor to poor visibility (see also the discussion of health effects of particulate matter).

SO₂ not only has a bad odor, SO₂ can also irritate the respiratory system. Exposure to high concentrations for short periods of time can constrict the bronchi and increase mucous flow, making breathing difficult. SO₂ can also, irritate the lung and throat at concentrations greater than 6 ppm in many people; impair the respiratory system's defenses against foreign particles and bacteria when exposed to concentrations less than 6 ppm for longer time periods; and enhance the harmful effects of ozone (combinations of the two gases at concentrations occasionally found in the ambient air appear to increase airway resistance to breathing).

SO₂ tends to have more toxic effects when acidic pollutants, liquid or solid aerosols, and particulates are also present. Effects are more pronounced among “mouth breathers,” e.g., people who are exercising or who have head colds. These effects include:

- Health problems, such as episodes of bronchitis requiring hospitalization associated with lower level acid concentrations;
- Self-reported respiratory conditions, such as chronic cough and difficult breathing, associated with acid aerosol concentrations (individuals with asthma are especially susceptible to these effects. The elderly and those with chronic respiratory conditions may also be affected at lower concentrations than the general population);
- Increased respiratory tract infections associated with longer term, lower level exposures to SO₂ and acid aerosols; and
- Subjective symptoms, such as headaches and nausea, in the absence of pathological abnormalities due to long-term exposure.

SO₂ easily injures many plant species and varieties, both native and cultivated. Some of the most sensitive plants include various commercially valuable pines, legumes, red and black oaks, white ash, alfalfa, and blackberry. The effects include:

- Visible injury to the most sensitive plants at exposures as low as 0.12 ppm for eight hours;
- Visible injury to many other plant types of intermediate sensitivity at exposures of 0.30 ppm for eight hours; and
- Positive benefits from low levels in a very few species growing on sulfur-deficient soils.

Increases in SO₂ concentrations accelerate the corrosion of metals, likely through the formation of acids. SO₂ is a major precursor to acidic deposition. Sulfur oxides may also damage stone and masonry, paint, various fibers, paper, leather, and electrical components.

Increased SO₂ also contributes to impaired visibility. Particulate sulfate, much of which is derived from SO₂ emissions, is a major component of the complex total suspended particulate mixture.

LEAD (PB) AND SUSPENDED SULFATE

Lead is a metal that is a natural constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, so it essentially persists forever. Historically, lead was used to increase the octane rating in automobile fuel. However, because gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels and that use has been mostly phased out (and replaced by unleaded fuel), the ambient concentrations of lead have dropped dramatically.

Ambient Pb levels in Bakersfield (the closest monitoring station to the Project) are well below the ambient standard and are expected to continue to decline; the data reported in **Table 4.3-4** only shows the highest concentration as the number of days exceeding standards is not reported. Suspended sulfate levels have stabilized to the point where no excesses of the State standard are expected in any given year.

Health Effects

Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ. Recent studies also show that lead may be a factor in high blood pressure and subsequent heart disease. Lead can also be deposited on the leaves of plants, presenting a hazard to grazing animals and humans through ingestion (US EPA, 2018).

This highly toxic metal has been used for many years in everyday products and has been found to cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death. Effects on the nervous systems of children are one of the primary health risk concerns from lead. In high concentrations, children can even suffer irreversible brain damage and death. Children 6 years old and under are most at risk, because their bodies are growing quickly. Since the 1980s, lead has been phased out in gasoline, reduced in drinking water, reduced in industrial air pollution, and banned or limited in consumer products.

If not detected early, children with high levels of lead in their bodies can suffer from:

- Damage to the brain and nervous system;
- Behavior and learning problems (such as hyperactivity);
- Slowed growth;
- Hearing problems; and
- Headaches.

Lead is also harmful to adults. Adults can suffer from:

- Difficulties during pregnancy;
- Other reproductive problems (in both men and women);
- High blood pressure;
- Digestive problems;
- Nerve disorders;
- Memory and concentration problems; and
- Muscle and joint pain.

Since the 1980s, lead has been phased out in gasoline, reduced in drinking water, reduced in industrial air pollution, and banned or limited in consumer products.

Hazardous air pollutants (HAPs); Toxic Air Contaminants (TACs)

Hazardous air pollutants (HAPs) is a term used by the federal CAA that includes a variety of pollutants generated or emitted by industrial production activities. Also known as TACs under the California Clean Air Act of 1988 (CCAA), 10 pollutants have been identified through ambient air quality data as posing the most substantial health risk in California. Direct exposure to these pollutants has been shown to cause cancer, birth defects, damage to brain and nervous system and respiratory disorders. CARB provides TAC emission inventories for only the larger air basins.

Sources include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners and motor vehicle exhaust. TACs do not have ambient air quality standards. Since no safe levels of TACs can be determined, there are no air quality standards for TACs. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. The requirements of the Air Toxic “Hot Spots” Information and Assessment Act apply to facilities that use, produce, or emit toxic chemicals. Facilities that are subject to the toxic emission inventory requirements of the Act must prepare and submit toxic emission inventory plans and reports to CARB and periodically update those reports. While TACs do result in potential health risks for those exposed, the proposed Project would not emit TACs with the exception of DPM and, therefore, only DPM is described further in this analysis.

Diesel Particulate Matter (DPM)

DPM is emitted from both mobile and stationary sources. In California, on-road diesel-fueled engines contribute approximately 24 percent of the statewide total, with an additional 71 percent attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. Stationary sources contribute about 5 percent of total DPM.

Health Effects

Diesel exhaust and many individual substances contained in it (including arsenic, benzene, formaldehyde, and nickel) have the potential to contribute to mutations in cells that can lead to cancer. Long-term exposure to diesel exhaust particles poses the highest cancer risk of any TAC evaluated by the California Office of Environmental Health Hazard Assessment (OEHHA). CARB estimates that approximately 70 percent of the cancer risk that the average Californian faces from breathing TACs stems from diesel exhaust particles.

In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. Using information from OEHHA’s assessment, CARB estimates that diesel-particle levels measured in

California's air in 2000 could cause 540 "excess" cancers (beyond what would occur if there were no diesel particles in the air) in a population of one million people over a 70-year lifetime. Other researchers and scientific organizations, including the National Institute for Occupational Safety and Health, have calculated similar cancer risks from diesel exhaust as those calculated by OEHHA and CARB.

Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks (CARB and ALA 2001).

Airborne Fungus (Valley Fever)

Coccidioidomycosis, commonly referred to as San Joaquin Valley Fever or Valley Fever, is one of the most studied and oldest known fungal infections. Valley Fever most commonly affects people who live in hot dry areas with alkaline soil and varies with the season. This disease, which affects both humans and animals, is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis* (CI). CI spores are found in the top few inches of soil and the existence of the fungus in most soil areas is temporary. The cocci fungus lives as a saprophyte in dry, alkaline soil. When weather and moisture conditions are favorable, the fungus "blooms" and forms many tiny spores that lie dormant in the soil until they are stirred up by wind, vehicles, excavation, or other ground-moving activities and become airborne. Agricultural workers, construction workers, and other people who work outdoors and who are exposed to wind and dust are more likely to contract Valley Fever. Children and adults whose hobbies or sports activities expose them to wind and dust are also more likely to contract Valley Fever. After the fungal spores have settled in the lungs, they change into a multicellular structure called a spherule. Fungal growth in the lungs occurs as the spherule grows and bursts, releasing endospores, which then develop into more spherules.

Health Effects

The health effects of Valley Fever range in severity from mild, self-limiting illness to life threatening disease. Approximately 40 percent of those infected develop symptomatic illness, while the remaining 60 percent experience no symptoms at all (CDC, 2024). Of those who develop symptoms, most recover fully within weeks to months without medical intervention. However, approximately 5 to 10 percent of infected individuals fail to recover and develop serious or chronic pulmonary complications, including bronchiectasis, cavitary pneumonia, or pulmonary fibrosis, which may require prolonged treatment (CDC, 2024). In approximately 1 percent of cases, the infection disseminates beyond the lungs to other organ systems, including the central nervous system, bones, joints, and skin. Disseminated disease is the most serious form of coccidioidomycosis; when the infection spreads to the brain, coccidioidal meningitis can develop, which is potentially fatal without lifelong antifungal therapy (Mayo Clinic, 2023). Individuals at elevated risk for severe or disseminated disease include immunocompromised persons, pregnant women, those with diabetes, persons aged 65 or older, and individuals of Filipino or African

American descent (CDC, 2024). Given that construction and grading activities in Kern County disturb soil and generate airborne dust, workers and other persons in the project vicinity during ground-disturbing operations face an elevated risk of exposure to *Coccidioides* spores.

Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals found in many parts of California. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95 percent of all asbestos contained in buildings in the United States. In addition, naturally occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill Projects, and other improvement Projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development Projects, and at quarry operations. Serpentinite and/or ultramafic rock are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in the counties associated with the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. According to information provided by the California Department of Conservation (DOC) Division of Mines and Geology, the Project Site is not located in an area where naturally occurring asbestos is likely to be present (DOC, 2000).

Health Effects

Asbestos fibers, when inhaled, can cause serious and irreversible health conditions. The primary diseases associated with asbestos exposure include asbestosis (a scarring of lung tissue that impairs breathing and can cause permanent lung damage), lung cancer, and mesothelioma (a rare and typically fatal cancer of the thin membranes lining the chest and abdominal cavities). All forms of asbestos are classified as known human carcinogens with no safe threshold level of exposure by the U.S. Environmental Protection Agency (EPA), the International Agency for Research on Cancer (IARC), and the U.S. Department of Health and Human Services (HHS) (IARC, 2012; NTP, 2014; EPA, 2024). The risk of developing asbestos-related disease is related to the intensity and duration of exposure, with a typical latency period of 15 to 50 years between initial exposure and disease manifestation; smokers exposed to asbestos face a substantially heightened risk of lung cancer beyond the individual risks of either exposure alone (ATSDR, 2001). In California, CARB identified asbestos as a Toxic Air Contaminant (TAC) with no safe threshold level in 1986 under the Toxic Air Contaminant Identification and Control Act (AB 1807; California Health and Safety Code Section 39655 et seq.), recognizing the statewide public health risk posed by airborne asbestos emissions (CARB, 1986). In response, CARB adopted two Airborne Toxic Control Measures (ATCMs) applicable to ground-disturbing activities: ATCM 93105, governing construction, grading, quarrying, and surface mining operations in areas where NOA is found or likely to be found; and ATCM 93106, governing surfacing applications on unpaved roads and driveways (CARB, 1990; 2002). These ATCMs, enforced locally by the Eastern Kern Air Pollution Control District (EKAPCD), require the implementation of best available dust mitigation measures and, for projects exceeding one acre, prior notification to the local air district.

Compliance with CARB's ATCMs and applicable EKAPCD rules remains a regulatory requirement for all construction and grading activities associated with the project.

Reactive Organic Gases and Volatile Organic Compounds

Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases, including ROG and VOCs. ROG is a set of organic gases based on state rules and regulations. VOCs are similar to ROG in that they include all organic gases except those exempted by federal law. VOCs are emitted from incomplete combustion of hydrocarbons or other carbon-based fuels. Combustion engine exhaust, oil refineries, and oil-fueled power plants are the primary sources of hydrocarbons. Another source of hydrocarbons is evaporation from petroleum fuels, solvents, dry-cleaning solutions, and paint effects. (See ozone health effects discussion above.) High levels of hydrocarbons in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. There are no separate federal or CAAQS for VOC. Carcinogenic forms of VOC are considered toxic air contaminants (TACs). An example is benzene, which is a carcinogen.

Health Effects

The health effect of individual carcinogenic VOCs are described below under the heading "Toxic Air Contaminants."

Sulfates (SO₄²⁻)

Sulfates (SO₄²⁻) are particulate products of combustion of sulfur-containing fossil fuels. When SO or SO₂ are exposed to oxygen they precipitate out into sulfates (SO₃ or SO₄²⁻) Sulfates are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum derived fuels (that is, gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO₂ during the combustion process and is subsequently converted to sulfate compounds in the atmosphere. The conversion of SO₂ to sulfates takes place relatively rapidly and completely in urban areas of California due to regional meteorological features. CARB's sulfates standard is designed to prevent aggravation of respiratory symptoms.

Health Effects

Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardiopulmonary disease. Sulfates are particularly effective in degrading visibility, and, because they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide (H₂S)

Hydrogen Sulfide (H₂S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation. In Kern

County, H₂S is associated with geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations.

Health Effects

Exposure to low concentrations of H₂S may irritate the eyes, nose, and throat. It may also cause difficulty in breathing for some asthmatics. Exposure to higher concentrations (above 100 ppm) of H₂S can cause olfactory fatigue, respiratory paralysis, and death. Brief exposures to high concentrations of H₂S, greater than 500 ppm, can cause a loss of consciousness. In most cases, the person appears to regain consciousness without any other effects. However, in many individuals, there may be permanent or long-term effects such as headaches, poor attention span, poor memory, and poor motor function. No health effects have been found in humans exposed to typical environmental concentrations of H₂S, 0.00011 to 0.00033 ppm. Deaths due to inhaling large amounts of H₂S have been reported in a variety of different work settings, including sewers, animal processing plants, waste dumps, sludge plants, oil and gas well drilling sites, and tanks and cesspools. Current federal standards for H₂S have no attainment designation and the SJVAPCD is designated as unclassified for state standards.

Visibility Reducing Particulates

Visibility reducing particles are a mixture of suspended PM consisting of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt. CARB does not yet have a measurement method that is accurate or precise enough to designate areas in the state as being in attainment or nonattainment. Thus, the entire state is unclassified.

Vinyl Chloride

Vinyl chloride monomer is a sweet smelling, colorless gas at ambient temperature. Landfills, publicly owned treatment works, and polyvinyl chloride (PVC) production are the major identified sources of vinyl chloride emissions in California. PVC can be fabricated into several products, such as pipes, pipefittings, and plastics. In humans, epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of liver angiosarcoma, which is a rare cancer, and have suggested a relationship between exposure and cancers of the lung and brain. There are currently no adopted ambient air standards for vinyl chloride.

Health Effects

Acute exposure of humans to high levels of vinyl chloride via inhalation has resulted in effects on the central nervous system, such as dizziness, drowsiness, headaches, and giddiness. Vinyl chloride is reported to be slightly irritating to the eyes and respiratory tract in humans. Acute exposure to extremely high levels of vinyl chloride has caused loss of consciousness, irritation to the lungs and kidneys, and inhibition of blood clotting in humans and cardiac arrhythmias in animals.

Tests involving acute exposure of mice to vinyl chloride have shown a high acute toxicity from inhalation exposure. Long-term exposure to vinyl chloride has been linked with the following chronic health effects: Liver damage may result in humans from chronic exposure to vinyl chloride, through both inhalation and oral exposure; a set of symptoms termed “vinyl chloride disease,” which is characterized by Raynaud’s phenomenon (fingers blanch and numbness and discomfort are experienced upon exposure to the cold), changes in the bones at the end of the fingers, joint and muscle pain, and scleroderma-like skin changes (thickening of the skin, decreased elasticity, and slight edema); and central nervous system effects (including dizziness, drowsiness, fatigue, headache, visual and/or hearing disturbances, memory loss, and sleep disturbances) as well as peripheral nervous system symptoms (peripheral neuropathy, tingling, numbness, weakness, and pain in fingers) have also been reported in workers exposed to vinyl chloride; reproductive/developmental health effects; and cancer risk.

Toxic Air Contaminants

Hazardous air pollutants (HAPs) is a term used by the federal Clean Air Act (CAA) that includes a variety of pollutants generated or emitted by industrial production activities. Called “TACs” under California law (Health and Safety Code Sections 39650 et seq.), 10 pollutants have been identified through ambient air quality data as posing the most substantial health risk in California. Direct exposure to all of these pollutants has been shown to cause cancer, birth defects, damage to the brain and nervous system, and respiratory disorders. Similar to criteria pollutants, TACs are emitted from stationary sources, areawide sources, mobile sources, and natural sources.

Climate Change and Greenhouse Gases

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. In its Fifth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, could range from 1.1 degree Celsius (°C) to 6.4°C (8 to 10.4°Fahrenheit) (IPCC, 2013). Global average temperatures and sea levels are expected to rise under all scenarios (IPCC, 2014). The IPCC concluded that global climate change was largely the result of human activity, mainly the burning of fossil fuels. However, the scientific literature is not consistent regarding many aspects of climate change, the actual temperature changes during the 20th century, and contributions from human versus non-human activities.

According to the 2006 California Climate Action Team (CAT) Report, several climate change effects can be expected in California over the course of the next century (CalEPA, 2006). These are based on trends established by the IPCC and are summarized below.

- A diminishing Sierra snowpack declining by 70 percent to 90 percent, threatening the State’s water supply.
- A rise in sea levels, resulting in the displacement of coastal businesses and residences. During the past century, sea levels along California’s coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Sea level rises of this magnitude would inundate coastal areas with salt water, accelerate

coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. (Note: This condition would not affect the proposed Project area, as it is a significant distance away from coastal areas.)

- An increase in temperature and extreme weather events. Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- Increased risk of large wildfires if rain increases as temperatures rise. Wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant fuel available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- Increasing temperatures from 8 to 10.4°F under the higher emission scenarios, leading to a 25 percent to 35 percent increase in the number of days that ozone pollution levels are exceeded in most urban areas (see below).
- Increased vulnerability of forests due to forest fires, pest infestation, and increased temperatures.
- Reductions in the quality and quantity of certain agricultural products. The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- Exacerbation of air quality problems. If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- A decrease in the health and productivity of California's forests. Climate change can cause an increase in wildfires, an enhanced insect population, and the establishment of non-native species.
- Increased electricity demand, particularly in the hot summer months.
- Increased ground-level ozone formation due to higher reaction rates of ozone precursors.

Health Effects

Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme weather events, and degradation of air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke, drought, etc. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution.

4.3.3 Regulatory Setting

Protection of public health is maintained through the attainment and maintenance of ambient air quality standards for various atmospheric compounds and the enforcement of emissions limits for individual stationary sources.

The Federal Clean Air Act requires that the U.S. Environmental Protection Agency (EPA) establish National Ambient Air Quality Standards (NAAQS) to protect the health, safety, and welfare of the public. NAAQS have been established for ozone (O₃), CO, NO₂, SO₂, PM₁₀ and PM_{2.5}, and lead (Pb).

Under the California Clean Air Act, the state has also adopted ambient air quality standards (CAAQS) for these "criteria" air pollutants. CAAQS are more stringent than the corresponding NAAQS and include standards for sulfates, hydrogen sulfide (H₂S), vinyl chloride (chloroethene), and visibility-reducing particles. The U.S. Clean Air Act Amendments of 1977 required each state to identify areas that were in non-attainment of the NAAQS and to develop State Implementation Plans (SIPs) containing strategies to bring these non-attainment areas into compliance.

The EKAPCD has primary responsibility for regulating stationary sources of air pollution situated within its jurisdictional boundaries. To this end, the EKAPCD implements air quality programs required by State and federal mandates, enforces rules and regulations based on air pollution laws, and educates businesses and residents about their role in protecting air quality. The EKAPCD is also responsible for managing and permitting existing, new, and modified sources of air emissions within the Mojave Desert portion of Kern County and also established the following rules and regulations to ensure compliance with local, State, and federal air quality regulations.

Federal

Clean Air Act (CAA); U.S. Environmental Protection Agency (USEPA)

The principal air quality regulatory mechanism on the federal level is the Clean Air Act (CAA) and in particular, the 1990 amendments to the CAA, and the NAAQS that it establishes. These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants include ozone, CO, NO₂ (which is a form of NO_x), SO₂ (which is a form of SO_x), PM₁₀, PM_{2.5}, and lead. EPA also has regulatory and enforcement jurisdiction over emission sources beyond State waters (outer continental shelf), and those that are under the exclusive authority of the federal government, such as aircraft, locomotives, and interstate trucking. EPA's primary role at the State level is to oversee the State air quality programs. The USEPA sets federal vehicle and stationary source emission standards and oversees approval of all State Implementation Plans (SIP), as well as providing research and guidance in air pollution programs. The SIP is a State level document that identifies all air pollution control programs within California that are designed to meet the NAAQS.

New Source Performance Standards

The proposed Project will be subject to the applicable New Source Performance Standards (NSPS) standards that are identified below along with a description of the applicant's compliance plan to meet each standard:

40 CFR Part 60, Subpart IIII

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines became effective July 11, 2006. The Project's emergency diesel engines are subject to Subpart IIII. The proposed engines are EPA Tier 2-certified base engines equipped with Johnson Matthey CompactSCRT aftertreatment (SCR + DPF) as Best Available Control Technology (BACT), achieving Tier 4 Final-equivalent emission levels at stack.

According to 40 CFR 60.4202, emergency CI engines rated at greater than 560 kW are subject to the emissions standards in 40 CFR 89.112, Table 1, as follows:

- Tier 4 – NO_x 0.5 g/bhp-hr
- Tier 4 – NMHC 0.14 g/bhp-hr
- Tier 4 – CO 2.6 g/bhp-hr
- Tier 4 – PM 0.02 g/bhp-hr

The proposed diesel-fired engines will be equipped with SCR catalyst systems and diesel particulate filters (DPF) which will result in the engines meeting the EPA/CARB Tier 4 equivalent emissions standards with aftertreatment, as well as the BACT requirements of the EKAPCD.

40 CFR Part 60 Subpart ZZZZ

The proposed CI engines are exempt from the requirements of Subpart ZZZZ (63.6590(c)(1)) if the engines comply with the emissions limitations specified in 40 CFR 60 Subpart IIII. See discussion above.

State

California Air Resources Board (CARB)

CARB, a department of the California Environmental Protection Agency (Cal/EPA), oversees air quality planning and control throughout California by administering the state implementation plan (SIP). Its primary responsibility lies in ensuring implementation of the 1989 amendments to the CCAA, responding to the federal CAA requirements and regulating emissions from motor vehicles sold in California. CARB also sets fuel specifications to further reduce vehicular emissions.

The amendments to the CCAA establish the CAAQS, and a legal mandate to achieve these standards by the earliest practical date. These standards apply to the same criteria pollutants as the

federal CAA, and also include sulfates, visibility reducing particulates, hydrogen sulfide and vinyl chloride (there are currently no NAAQS for these latter pollutants). They are also generally more stringent than the national standards in most cases, although recently promulgated NAAQS for 1-hour NO₂ and SO₂ can in some instances be more stringent than the respective CAAQS.

CARB is also responsible for regulations pertaining to TACs. The Air Toxics “Hot Spots” Information and Assessment Act (Assembly Bill [AB] 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release into their local air basin. Each ACPD and air quality management districts (AQMDs) in the State ranks the data into high, intermediate and low priority categories. When considering the ranking, the potency, toxicity, quantity, volume and proximity of the facility to receptors are given consideration by an air district.

CARB also has on- and off-road engine emission-reduction programs that would indirectly affect the Project’s emissions through the phasing in of cleaner on- and off-road engines. Additionally, CARB has a Portable Equipment Registration Program that allows owners or operators of portable engines and associated equipment to register their units under a statewide program to operate their equipment which must meet specified program emission requirements, throughout California without having to obtain individual permits from local air districts. Since the Project is not proposing to install any applicable stationary sources, the AB 2588 program would not apply to the Project.

In 2007, CARB enacted a regulation for the reduction of DPM and criteria pollutant emissions from in-use off-road diesel-fueled vehicles (13 CCR Article 4.8, Chapter 9, Section 2449). This regulation provides target emission rates for particulate matter and NO_x emissions for owners of fleets of diesel-fueled off-road vehicles. It applies to equipment fleets of three specific sizes, and the target emission rates are reduced over time with full implementation by 2023 for large and medium fleets and 2028 for small fleets.

Local

Kern County General Plan

The goals, policies, and implementation measures in the Kern County General Plan applicable to air quality, as related to the Project, are provided below. The Kern County General Plan contains additional policies, goals, and implementation measures that are more general in nature and not specific to development such as the proposed Project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Chapter 1: Land Use, Conservation, and Open Space Element (Air Quality)

Goal 1: Ensure that the County can accommodate anticipated future growth and development while maintaining a safe and healthful environment and a prosperous

economy by preserving valuable natural resources, guiding development away from hazardous areas, and assuring the provision of adequate public services.

- Policy 18: The air quality implications of new discretionary land use proposals shall be considered in approval of major developments. Special emphasis will be placed on minimizing air quality degradation in the desert to enable effective military operations and in the valley region to meet attainment goals.
- Policy 19: In considering discretionary Projects for which an Environmental Impact Report must be prepared pursuant to the California Environmental Quality Act, the appropriate decision making body, as part of its deliberations, will ensure that:
1. All feasible mitigation to reduce significant adverse air quality impacts have been adopted; and
 2. The benefits of the proposed Project outweigh any unavoidable significant adverse effects on air quality found to exist after inclusion of all feasible mitigation. This finding shall be made in a statement of overriding considerations and shall be supported by factual evidence to the extent that such a statement is required pursuant to the California Environmental Quality Act.
- Policy 20: The County shall include fugitive dust control measures as a requirement for discretionary Projects and as required by the adopted rules and regulations of the San Joaquin Valley Unified Air Pollution Control District and the Kern County Air Pollution Control District on ministerial permits.
- Policy 21: The County shall support air districts efforts to reduce PM10 and PM2.5 emissions.
- Policy 22: Kern County shall continue to work with the San Joaquin Valley Unified Air Pollution Control District and the Kern County Air Pollution Control District toward air quality attainment with federal, state, and local standards.
- Measure F: All discretionary permits shall be referred to the appropriate air district for review and comment.
- Measure G: Discretionary development Projects involving the use of tractor-trailer rigs shall incorporate diesel exhaust reduction strategies including, but not limited to:
1. Minimizing idling time.
 2. Electrical overnight plug-ins.

Measure H: Discretionary Projects may use one or more of the following to reduce air quality effects:

- Pave dirt roads within the development.
- Pave outside storage areas.
- Provide additional low Volatile Organic Compounds (VOC) producing trees on landscape plans.
- Use of alternative fuel fleet vehicles or hybrid vehicles.
- Use of emission control devices on diesel equipment.
- Develop residential neighborhoods without fireplaces or with the use of Environmental Protection Agency certified, low-emission natural gas fireplaces.
- Provide bicycle lockers and shower facilities on Site.
- Increasing the amount of landscaping beyond what is required in the Zoning Ordinance (Chapter 19.86).
- The use and development of park and ride facilities in outlying areas.
- Other strategies that may be recommended by the local Air Pollution Control Districts.

Measure J: The County should include PM10 control measures as conditions of approval for subdivision maps, Site plans, and grading permits.

Chapter 5: Energy Element (Solar Energy Development)

The data center conceptual plan anticipates use of roof-top and parking lot solar canopies to offset ancillary energy consumption separate from the data center IT infrastructure.

Goal 1: Encourage safe and orderly commercial solar development.

Policy 1: The County shall encourage domestic and commercial solar energy uses to conserve fossil fuels and improve air quality.

Policy 3: The County should permit solar energy development in the desert and valley planning regions that do not pose significant environmental or public health and safety hazards.

Inyokern Specific Plan

The entire Project Site is subject to the provisions of the Inyokern Specific Plan, which contains goals, policies, and standards that are compatible with those of the Kern County General Plan, but are unique to the specific needs of the of the Inyokern Area. The Land Use, Open Space, and Conservation Element of the Inyokern Specific Plan has the purpose of identifying physical constraints, public, residential, commercial, and industrial facilities as well as cultural and biological resources within the Plan area. The goals and policies in the Inyokern Specific Plan for air quality applicable to the Project are provided below. The Inyokern Specific Plan contains

additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the Project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

Land Use, Open Space, and Conservation Element; 1.3: Residential

- Goal 1: To accommodate future residential development in an environmentally safe and secure manner while promoting efficient and economical use of land and public expenditures.
- Policy 6: The air quality effects of the proposed land use will be considered when evaluating industrial and commercial development proposals.
- Policy 7: Kern County may disapprove Projects found to have significant and unmitigable adverse effects on air quality.

Land Use, Open Space, and Conservation Element; 1.6: Resource

- Goal 1: To provide for development which does not impair the economic potential of the area, while not diminishing the other amenities which exist within the community.
- Policy 2: The County will maintain and enhance air quality for the health and well-being of County residents by encouraging land uses which promote air quality and good visibility.
- Policy 5: Encourage development of alternative energy sources by tailoring County zoning and subdivision ordinances and building standards to reflect Alternative Energy Guidelines published by the California State Energy Commission.

Eastern Kern Air Pollution Control District

The EKAPCD has primary responsibility for regulating stationary sources of air pollution situated within its jurisdictional boundaries. To this end, the EKAPCD implements air quality programs required by State and federal mandates, enforces rules and regulations based on air pollution laws, and educates businesses and residents about their role in protecting air quality.

The EKAPCD is also responsible for managing and permitting existing, new, and modified sources of air emissions within the Mojave Desert portion of Kern County and also established the following rules and regulations to ensure compliance with local, State, and federal air quality regulations:

EKAPCD Regulation II, Rule 210.1 – New & Modified Stationary Source Review (NSR)

This rule applies to all new or modified sources requiring a Permit to Operate for any new source with actual or potential emissions above the rule trigger limits. The rule also specifies when BACT

is required, when offsets are required and the offset ratios, as well as the requirements for the required impact analyses, etc.

EKAPCD BACT Requirements

Under Rule 210.1, BACT is determined on a case-by-case basis and is defined as the most stringent emission limitation or control technique that has been achieved in practice for the category of source, or is technologically feasible and cost-effective, considering energy, environmental, and economic impacts.

BACT determinations are conducted using a top-down evaluation of available control technologies. The most effective control option that is technically and economically feasible is selected as BACT.

The proposed 4,023 horsepower diesel-fired engines will operate as emergency standby generators. Available control technologies evaluated include SCR and DPF to meet EPA Tier 4 Final equivalent emission standards. For new stationary emergency compression-ignition engines of this size, EPA Tier 4 Final certification represents the most stringent emission standard currently achieved in practice.

NSR Offset Requirements

A new or modified stationary source of PM₁₀ or SO_x shall provide offsets for the NSR balance when the NSR balance, calculated pursuant to Subsection IV.D. of Rule 210.1, equals or exceeds the following offset trigger levels; and a new or modified stationary source of NO_x and VOC shall provide offsets for the source's potential to emit when the source's potential to emit, calculated pursuant to Subsection IV.E. of Rule 210.1, equals or exceeds the following offset trigger levels:

- PM₁₀: 15 tons/yr
- SO_x (as SO₂): 27 tons/yr
- VOC: 25 tons/yr
- NO_x (as NO₂): 25 tons/yr

According to Rule 210.1, offsets shall not be required for emergency equipment not operated more than 200 hours per year (excluding routine maintenance/service startups), as approved by the Control Officer. To qualify for exemption, an emergency electrical generator cannot be operated as part of any utility voluntary reduction program. A source with equipment exempted by this provision shall log hours of operation monthly and submit yearly hours of operation demonstrating qualification for continued exemption prior to permit renewal.

Global Climate Change Regulatory Issues

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United Nations Framework Convention on Climate

Change established an agreement with the goal of controlling GHG emissions, including methane. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan consists of more than 50 voluntary programs. Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. Pursuant to the Montreal Protocol, the production and consumption of compounds that deplete O₃ in the stratosphere (chlorofluorocarbons [CFCs], halons, carbon tetrachloride, and methyl chloroform) were phased out by 2000 (methyl chloroform was phased out by 2005). On September 27, 2006, Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006 (the Act), was enacted by the State of California. The legislature stated, “Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California.” The Act caps California’s GHG emissions at 1990 levels by 2020. The Act defines GHG emissions as all of the following gases: carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. This agreement represents the first enforceable statewide program in the U.S. to cap all GHG emissions from major industries that include penalties for non-compliance. While acknowledging that national and international actions will be necessary to fully address the issue of global warming, AB 32 lays out a program to inventory and reduce GHG emissions in California and from power generation facilities located outside the State that serve California residents and businesses. According to CARB, California has met its 2020 GHG emission reduction target (CARB, 2021).

Subsequent legislation by the California legislature has included Senate Bill (SB) 32, which expanded on AB 32 to reduce GHG emissions to 40 percent below the 1990 levels by 2030; AB 197, which increased the legislative oversight of the CARB by adding two legislatively appointed non-voting members to the CARB Board and provided additional protection to disadvantaged communities; SB 350, which increased California’s renewable energy electricity procurement goal; and SB 100, which established a landmark policy requiring renewable energy and zero-carbon resources to supply 100 percent of electrical retail sales to end-use customers and 100 percent of electricity procured to serve State agencies by 2045.

Global warming and climate change have received substantial public attention for more than 20 years. For example, the United States Global Change Research Program was established by the Global Change Research Act of 1990 to enhance the understanding of natural and human-induced changes in the Earth’s global environmental system, to monitor, understand, and predict global change, and to provide a sound scientific basis for national and international decision-making. Even so, the analytical tools have not been developed to determine the effect on global warming from a particular increase in GHG emissions, or the resulting effects on climate change in a particular locale. The scientific tools needed to evaluate the impacts that a specific Project may have on the environment are even further in the future.

The California Supreme Court’s most recent CEQA decision on the Newhall Ranch development case, *Center for Biological v. California Department of Fish and Wildlife* (November 30, 2015, Case No. 217763), determined that the Project’s Environmental Impact Report (EIR) did not substantiate the conclusion that the GHG cumulative impacts would be less than significant. The EIR determined that the Newhall Ranch development Project would reduce GHG emissions by 31 percent from business as usual (BAU). This reduction was compared to California’s target of reducing GHG emissions statewide by 29 percent from business as usual. The Court determined

that “the EIR’s deficiency stems from taking a quantitative comparison method developed by the Scoping Plan as a measure of the greenhouse gas reduction effort required by the State as a whole, and attempting to use that method, without adjustments, for a purpose very different from its original design.” In the Court’s final ruling, it offered suggestions that were deemed appropriate use of the BAU methodology:

Lead agencies can use the comparison to BAU methodology if they determine what reduction a particular Project must achieve in order to comply with statewide goals. Project design features that comply with regulations to reduce emissions may demonstrate that those components of emissions are less than significant.

Lead agencies could also demonstrate compliance with locally adopted climate plans or apply specific numerical thresholds developed by some local agencies.

As discussed in the below Section 4.2.4, Significance Criteria, the EKAPCD, has developed a specific numerical threshold to determine significance of a proposed Project. According to the Court’s ruling, this numerical threshold can be used to demonstrate compliance. This threshold is applied to the subject Project in order to determine significance.

4.3.4 Impacts

Significance Criteria

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations:

- (a) Would the project conflict with or obstruct implementation of the applicable air quality plan;
- (b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;
- (c) Would the project expose sensitive receptors to substantial pollutant concentrations; and
- (d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

As noted above, to determine whether a proposed project could create a potential CEQA impact, local, State, and federal agencies have developed various means by which a Project’s impacts may be measured and evaluated. Such means can generally be categorized as follows:

Thresholds of significance adopted by air quality agencies to guide lead agencies in their evaluation of air quality impacts under the CEQA. Also applicable are regulations established by air districts, CARB, and EPA for the evaluation of stationary sources when applying for Authorities to Construct, Permits to Operate, and other permit program requirements (e.g., New Source Review) and thresholds utilized to determine if a Project would cause or contribute significantly to violations of the ambient air quality standards or other concentration-based limits. Regulations applied in areas where severe air quality problems exist.

Below are summary tables of these emission-based and concentration-based thresholds of significance for each pollutant, along with a discussion of their applicability.

EKAPCD Thresholds Adopted for the Evaluation of Air Quality Impacts under CEQA

In order to maintain consistency with CEQA, the EKAPCD adopted guidelines to assist applicants in complying with the various requirements. According to the EKAPCD's Guidelines (EKAPCD 1999), a proposed project does not have significant air quality impacts on the environment, if operation of the project will:

- Emit (from all Projects sources subject to EKAPCD Rule 201) less than offsets trigger levels set forth in Subsection III.B.3 of EKAPCD's Rule 210.1 (New and Modified Source Review Rule);
- Emit less than 137 pounds per day (25 tons per year) of NO_x or Reactive Organic Compounds from motor vehicle trips (indirect sources only);
- Not cause or contribute to exceeding any California or National Ambient Air Quality Standard;
- Not exceed the District health risk public notification thresholds adopted by the EKAPCD Board; or
- Be consistent with adopted Federal and State Air Quality Attainment Plans.

The guideline thresholds are designed to implement the general criteria for air quality emissions as required in the State CEQA Guidelines, Appendix G, Paragraph III and CEQA (State of California CEQA Guidelines, §15064.7). As such, EKAPCD thresholds provide a means by which the general standards set forth by Appendix G may be used to quantitatively measure the air quality impacts of a specific project.

Impact 4.3-1: Would the project conflict with or obstruct implementation of the applicable air quality plan.

National Ambient Air Quality Standards (NAAQS) are EPA-set standards under the Clean Air Act to protect public health ("primary") and welfare ("secondary") from harmful air pollutants. They cover six criteria pollutants— particulate matter (PM), ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead. Recent NAAQS updates targeting fine particles (PM_{2.5}) were made in 2024.

California Ambient Air Quality Standards (CAAQS), as administered by CARB, for the same six pollutants, as well as for the following four additional pollutants: Sulfates, Hydrogen Sulfide, Vinyl Chloride, and Visibility-Reducing Particles. CARB also determines whether air basins, or portions thereof, are "unclassified," in "attainment," or in "non-attainment" for the NAAQS and CAAQS relying on statewide air quality monitoring data.

Table 4.3-3 provides the MDAB's designation and classification based on the various criteria pollutants under both NAAQS and CAAQS.

**Table 4.3-3 (Restating Table 0-4, AQIA)
Federal and California Standards**

Pollutant	Designation/Classification			
	National Ambient Air Quality Standards (NAAQS)	State Ambient Quality Standards		
	EKAPCD	Kern River / Cummings Valley ^{1,2}	Indian Wells Valley ^{3,4,5}	
Ozone – 1 Hour	Attainment ^{6,7}	Part of EKAPCD Area	Part of EKAPCD Area	Nonattainment
Ozone – 8 Hour ⁸	Serious Nonattainment	Part of EKAPCD Area	Unclassifiable/Attainment	Nonattainment
PM ₁₀	Unclassifiable/Attainment	Serious Nonattainment	Attainment Maintenance	Nonattainment
PM _{2.5}	Unclassifiable/Attainment	Part of EKAPCD Area	Part of EKAPCD Area	Unclassified
Carbon Monoxide	Unclassifiable/Attainment	Part of EKAPCD Area	Part of EKAPCD Area	Unclassified
Nitrogen Dioxide	Unclassified	Part of EKAPCD Area	Part of EKAPCD Area	Attainment
Sulfur Dioxide	Unclassified	Part of EKAPCD Area	Part of EKAPCD Area	Attainment
Lead Particulates	Unclassifiable/Attainment	Part of EKAPCD Area	Part of EKAPCD Area	Attainment

Source: EKAPCD 2018

Notes:

¹ Kern River Valley, Bear Valley, and Cummings Valley were previously included in the federally designated San Joaquin Valley PM₁₀ Serious Nonattainment Area but were made a separate Nonattainment area in 2008.

² Kern River Valley, Bear Valley, and Cummings Valley are included in EKAPCD for all NAAQS other than PM₁₀.

³ Indian Wells Valley is a separate planning area from the rest of EKAPCD for PM₁₀ NAAQS.

⁴ Indian Wells Valley is a separate area for the 1997 and 2008 8-hour ozone NAAQS (0.08 & 0.075 ppm).

⁵ Indian Wells Valley is included in EKAPCD for all NAAQS other than PM₁₀ and 8-hour ozone.

⁶ 1-hour ozone NAAQS was revoked effective June 15, 2004.

⁷ EKAPCD was in attainment for 1-hour ozone NAAQS at time of revocation; the proposed Attainment Maintenance designation's effective date was June 21, 2004, therefore it did not become effective.

⁸ Attainment for 1997 8-hour Ozone NAAQS (0.08 ppm), Serious Nonattainment for 2008 NAAQS (0.075 ppm), and Nonattainment State 8-hour standard (0.070 ppm)

As noted above, the EKAPCD has been designated as unclassifiable/attainment for the NAAQS for CO, PM₁₀, PM_{2.5}, and Lead, serious nonattainment for the O₃ eight-hour average standard, attainment for the O₃ one-hour average standard and unclassified for NO_x and SO_x. A federal designation for hydrogen sulfide (H₂S) has not been made.

The EKAPCD has been designated as nonattainment for the state one-hour and eight-hour standards for O₃, and PM₁₀, unclassified PM_{2.5} and CO, and attainment for NO_x, SO_x, and Lead. A state designation for hydrogen sulfide (H₂S) has not been made.

According to the EKAPCD Guidelines and Thresholds of Significance, which apply to a project located within the proposed project area would result in a significant impact if it exceeds any of the thresholds are presented in **Table 4.3-4** (Restating Table 4-1, AQIA)

**Table 4.3-4 (Restating Table 0-5, AQIA)
EKAPCD CEQA Thresholds of Significance**

Criteria Pollutant	Significance Level	
	Daily (Indirect Mobile Only)	Annual
NO _x	137 lbs/day	25 tons/yr
ROG	137 lbs/day	25 tons/yr
SO _x	-	27 tons/yr
PM ₁₀	-	15 tons/yr
PM _{2.5}	-	15 tons/yr

Source: EKAPCD 1999 and EKAPCD 2000.

Threshold for Ambient Air Quality Impacts

CEQA Guidelines – Appendix G (Environmental Checklist) states that a Project that would “*violate any air quality standard or contribute substantially to an existing or Projected air quality violation*” would be considered to create significant impacts on air quality. Therefore, an AQIA should determine whether the emissions from a Project would cause or contribute significantly to violations of the NAAQS or CAAQS (presented above in **Error! Reference source not found.**) when added to existing ambient concentrations.

The EPA has established the federal Prevention of Significant Deterioration (PSD) program to determine what comprises “significant impact levels” (SIL) to NAAQS attainment areas. A Project’s impacts are considered less than significant if emissions are below PSD SIL for a particular pollutant. When a SIL is exceeded, an additional “increment analysis” is required. As the Project would not include modification to the stationary source under New Source Review (NSR), it would not be subject to either PSD or NSR review. The PSD SIL thresholds are used with ambient air quality modeling for a CEQA Project to address whether the Project would “*violate any air quality standard or contribute substantially to an existing or Projected air quality violation.*” Ambient air quality emissions estimates below the PSD SIL thresholds would result in less than significant ambient air quality impacts on both a Project and cumulative CEQA impact analysis. The MDAB is classified as non-attainment/marginal for the 8-hour O₃ NAAQS and, as such, is subject to non-attainment NSR. PSD SILs and increments are more stringent than the CAAQS or NAAQS and represent the most stringent thresholds of significance.

Thresholds for Hazardous Air Pollutants

The EKAPCD’s Guidelines state, that a Project result in a significant impact if it exceeds that District’s health risk notification thresholds presented in **Table 4.3-5** (Restating Table 4-2, AQIA).

Table 4.3-5 (Restating AQIA Table 0-6)
Measures of Significance – Toxic Air Contaminants

Agency	Level	Description
Significance Thresholds Adopted for the Evaluation of Impacts Under CEQA		
SJVAPCD (MDAB does not have measures; SJVAPCD is used as regional proxy)	Carcinogens	Maximally Exposed Individual risk equals or exceeds 10 in one million.
	Non-Carcinogens	Acute: Hazard Index equals or exceeds 1.0 for the Maximally Exposed Individual. Chronic: Hazard Index equals or exceeds 1.0 for the Maximally Exposed Individual.

Source: EKAPCD, 1996

Global Climate Change Thresholds of Significance

On March 8, 2012, the EKAPCD adopted the *Addendum to CEQA Guidelines Addressing GHG Emission Impacts for Stationary Source Projects When Serving as Lead CEQA Agency*; which outlined the EKAPCD's Project-Specific CEQA significance thresholds for GHG emissions (EKAPCD 2012):

- (a) If Project is exempt from CEQA due to either a statutory or categorical exemption, no further analysis under CEQA is required.
- (b) Project-Specific GHG Emissions must be quantified if the Project is not exempt from CEQA.
- (c) Project is considered to have a less than significant impact or not have a cumulatively considerable impact on GHG emissions if it meets one of the following conditions:
 - Project-Specific GHG emissions are less than 25,000 tons per year (tpy);
 - Project demonstrates to EKAPCD that it is in compliance with state GHG reduction plan such as AB 32 or future federal GHG reduction plan if it is more stringent than state plan;
 - Project GHG emissions will be mitigated to a less than significant impact if GHGs can be reduced by at least 20% below Business-As-Usual (BAU) through implementation of one or more of the following strategies:
 - Compliance with a Best Performance Standard (BPS) as set forth in Section VI of this Policy;
 - Compliance with GHG Offset as detailed in Section VI of this Policy;
 - Compliance with an Alternative GHG Reduction Strategy as discussed in Section VII of this Policy.
- If none of the above is met the Project will be deemed significant and an Environmental Impact Report (EIR) will be required.

Project Related Emissions

This document was prepared pursuant to the EKAPCD's *Guidelines for Implementation of the California Environmental Quality Act, July 1, 1999 Revision*. The guidelines do not necessarily require a quantification of construction emissions for all Projects. Construction emissions quantification is typically required only at the request of the lead agency. The EKAPCD generally assumes that implementation of any construction-related mitigation measures will result in construction emissions impacts that are *less than significant*.

Project emissions were estimated separately for each emission source. Emissions were estimated for both short-term, construction-related sources and long-term, operations-related sources. Project emissions were estimated for the following development stages:

- Short-term (Construction and Demolition) – Construction emissions of the proposed Project were estimated in CalEEMod using the Project specific estimated construction schedule and construction equipment for the development. (See AQIA Appendix A.)
- Long-term (Operations) – Long-term emissions were also estimated in CalEEMod using model defaults and Project specifics as well as AP-42 emission factors, manufacturer specifications, EPA's Tanks Version 5.2, and EKAPCD approved emission factors and methodology (See AQIA Appendix A).

Short-Term Emissions

Short-term emissions from the construction phases of a Project would have temporary impacts on air quality.

The construction emissions were based on the default CalEEMod load and emission factors for the Project specific equipment and applying model defaults as well as a conservative analysis approach. Construction emissions were estimated under the assumption that construction would begin in 2027 lasting 48 months. The dates entered into the CalEEMod program represent the earliest construction timeline, which would estimate the worst-case emissions as construction equipment technology and emissions improve over time; therefore, all estimated emission totals are conservative and reflect a reasonable and legally sufficient estimate of potential impacts.

Adjustments to the CalEEMod default values were as follows:

- Land use lot acreage was adjusted to match the Project description.
- Demolition construction phase was removed as the Project Location is open land.
- Length of construction schedule was adjusted to match anticipated 48-month schedule.
- Equipment type, amount and usages were adjusted to match anticipated Project specific values.

Even though unmitigated emissions would be less than the air quality thresholds, the Project also must comply with EKAPCD Rule 402 to limit fugitive dust emissions. To ensure compliance, the

following mitigation measures were applied in CalEEMod resulting in Mitigated emissions shown in **Table 4.3-6** (Restating Table 4-3, AQIA):

- Water exposed area three times per day.
- Reduce vehicle speed to less than 15 miles per hour on unpaved roads.

Table 4.3-6 (Restating Table 4-3, AQIA) presents the Project’s short-term emissions based on the anticipated construction period.

As calculated with CalEEMod, the estimated short-term construction-related emissions would not exceed EKAPCD significance threshold levels during any given year and would, therefore, be *less than significant*.

Table 4.3-6 (Restating Table 4-3, AQIA)
Short-Term Project Emissions

Emissions Source	Pollutant (tons/year)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2027	0.29	1.72	4.75	0.01	0.54	0.16
2028	15.7	1.89	6.62	0.01	0.59	0.18
2029	11.6	1.30	3.68	0.01	0.61	0.16
2030	2.00	1.09	2.44	0.01	0.59	0.16
Significance Threshold	25	25	NA	27	15	15
Is Threshold Exceeded for a Single Year After Mitigation?	No	No	No	No	No	No

Source: QK 2026

Long-Term Operational Emissions

Long-term emissions are caused by operational mobile sources, area source emissions from the on-site building, and stationary sources.

Fugitive Dust Emissions

Operation of the Project Site at full build-out is not expected to present a substantial source of fugitive dust (PM₁₀) emissions. The main source of PM₁₀ emissions would be from vehicular traffic associated with the Project Site.

PM₁₀, on its own as well as in combination with other pollutants, creates a health hazard. EKAPCD’s Rule 402 and 419 implement required control measures to assist in minimizing these emissions.

- Rule 402 – Fugitive Dust – The purpose of this Rule is to prevent, reduce, and mitigate ambient concentrations of anthropogenic fugitive dust emissions to an amount sufficient to

attain and maintain the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS).

- Rule 419 - Nuisance – A person shall not discharge from any source whatsoever of such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.

The Project would comply with applicable EKAPCD Rules and Regulations, the local zoning codes, and additional emissions reduction measures recommended later in this analysis, in Section 7 of the AQIA, Mitigation and Other Recommended Measures.

Employee Trip and Building Emissions

Project-related transportation activities from industry would generate mobile source ROG, NO_x, SO_x, CO, PM₁₀, and PM_{2.5} exhaust emissions. Exhaust emissions would vary substantially from day to day but would average out over the course of an operational year. The variables factored into estimating total Project emissions include level of activity, Site characteristics, weather conditions, and number of employees. Emissions were estimated with CalEEMod using average daily trip counts from the traffic study and default trips lengths and fleet mix. CalEEMod was also used to estimate area source emissions from the on-site buildings and facility uses.

Stationary Source Emissions

Project-related stationary sources will also generate criteria pollutants from the proposed 40 emergency generators (ROG, NO_x, SO_x, CO, PM₁₀, and PM_{2.5}), cooling towers (PM₁₀ and PM_{2.5}), and fuel storage (VOC).

Emergency Generators

Backup power for the facility will be provided by 40 Caterpillar diesel-fired generators. The base engines are EPA Tier 2-certified for Emergency Stationary Applications. All generators are equipped with externally applied Johnson Matthey CompactSCRT aftertreatment, including Selective Catalytic Reduction (SCR), Diesel Exhaust Fluid (DEF) tanks, and Diesel Particulate Filters (DPF), achieving Tier 4 Final-equivalent emission levels at stack. Under standard emergency operation, when all generators are active, each unit will operate at no more than 80 percent of its peak rated capacity to ensure reliability and longevity.

Each generator will be supplied as an integrated package system containing both the prime mover and alternator, controlled by a dedicated programmable logic controller (PLC) located within the 480-volt main switchboard of the corresponding data center facility. Each generator will operate autonomously, with its own independent PLC designed to automatically initiate generator startup upon loss of utility power. Once utility service is restored and verified as stable, the PLC will transfer the load back to utility power and shut down the generator in a controlled sequence.

Each generator package will incorporate its SCR system and DEF storage tank within a compact enclosure. Generators will be installed within two secured generator yards, positioned on opposite sides of the main building to ensure load distribution and operational redundancy. All generators will be installed within secondary containment basins to mitigate potential environmental impacts in the event of fuel or fluid leakage. All generators would be operated routinely, i.e., readiness and maintenance testing, to ensure that they would function normally during an emergency event.

During routine readiness testing, criteria pollutants would be emitted directly from the generators. Criteria pollutant emissions from generator testing were quantified using information provided by the manufacturer. SO₂ emissions were based on the maximum sulfur content allowed in California diesel (15 parts per million by weight), and an assumed 100 percent conversion of fuel sulfur to SO₂. For conservative evaluation purposes, it was assumed that testing would occur for no more than 50 hours per year. 50 hours per year per engine is the limit specified by the Airborne Toxic Control Measure for Stationary Toxic Compression Ignition Engines (Title 17, Section 93115, CCR). The Applicant is not proposing a test schedule, i.e., hours versus load points. Testing will be done based upon the Applicants' judgment, considering the manufacturers' recommendations, staff availability, and necessity. For purposes of this Application, emissions were assumed to occur at 100% load, however, varying loads and warm-up conditions were considered for compliance with ambient air concentrations and health risk. Appendix A of the AQIA presents the engine emissions based upon the 100%, 75%, 50%, 25% and 10% load points. The engines were evaluated for criteria pollutants significance thresholds for the following emissions scenarios:

- Running for 50 hours per year for maintenance and readiness operations, at 100% load with a guaranteed Tier 4 emissions level.
- Running for 150 hours per year for emergency operations, at 100% load with a guaranteed Tier 4 emissions level.

Emergency generator emission calculations can be found in Appendix A and Manufacture Data can be found in Appendix D of the AQIA.

Cooling Towers

The chiller plant will include both high-temperature and low-temperature water-cooled chillers, supported by the hybrid cooling chillers. The high-temperature chillers and cooling chillers will supply cooling water for both direct liquid cooling of IT racks and air cooling of the data halls. Cooling water will be distributed to coolant distribution units, which will transfer heat to technical water that is then circulated to the IT racks for direct liquid cooling. The low-temperature chillers and cooling towers will provide chilled water for air cooling in critical electrical rooms and other technology spaces.

Potable water supplied by the Inyokern Community Services District (Inyokern CSD) will be used for cooling. The Project will comply with all applicable water quality requirements.

Both data halls and office areas will require minimal humidification. Although these systems consume less water than the cooling towers, they will still be connected to the same water treatment

systems. The cooling chillers will generate some discharge, while the humidification system will produce a negligible amount. Cooling towers will operate at a minimum of 5.0 cycles of concentration, consistent with Inyokern CSD Will Serve Letter requirements, and discharge water will be managed in accordance with a customized water treatment plan.

Non-IT areas—such as administrative offices, loading zones, storage rooms, and corridors—will be conditioned using a network of variable refrigerant flow (VRF) split-system air conditioners. These systems will include roof-mounted condensing units and distributed fan coil units throughout the spaces.

Particulate matter (PM₁₀ and PM_{2.5}) emissions from cooling towers occur primarily due to “drift,” which is the release of tiny water droplets carried out of the tower with the exhaust air. As warm process water is cooled, air is drawn or forced through the tower, and a small fraction of fine droplets can escape despite the presence of drift eliminators. These droplets contain dissolved and suspended solids (such as minerals, treatment chemicals, and corrosion byproducts), which become particulate matter once the water evaporates in the atmosphere. The PM₁₀ and PM_{2.5} emissions were calculated using the AP-42 Section 13.4 methodology incorporating Project specifications, control efficiencies and in practice assumptions and are presented in Appendix A of the AQIA.

Fuel Storage

The backup generators will primarily operate on renewable diesel when available. When renewable diesel is not readily accessible, ultra-low sulfur diesel will be used as an alternative. Each generator will have built-in fuel tanks and connections to additional on-site fuel storage.

The six 100,000 gallon diesel fuel storage tanks will be double-walled with integrated leak detection systems or installed within secondary containment structures. Kern County Code Section 18.80.030(T) requires the Kern County Fire Marshal to approve the storage of flammable and combustible liquids in excess of 12,000 gallons per tank and an aggregate maximum of 48,000 gallons, when accessory to a permitted use in the M-2 Zoning District. The Project has requested written approval from the Kern County Fire Marshal to store the proposed six 100,000 gallons of storage tanks, with an aggregate total of 600,000 gallons.

Combined, the generator and secondary fuel tanks will provide sufficient diesel storage to sustain 24 to 72 hours of continuous emergency operation at the data center’s full electrical load under worst-case conditions.

Fugitive emissions from diesel fuel storage occur primarily due to the volatilization of light hydrocarbons during routine storage and handling activities. Although diesel fuel has a relatively low vapor pressure compared to gasoline, small amounts of vapor are released through tank vents as a result of temperature changes (causing expansion and contraction of vapors), barometric pressure fluctuations, and liquid level changes during filling and withdrawal (“breathing” and working losses). Additional minor emissions can occur from equipment components such as valves, fittings, and transfer connections. These fugitive vapors consist mainly of volatile organic compounds (VOCs), with emission rates influenced by fuel composition, tank design (e.g., fixed-roof vs. pressure/vacuum vented), ambient temperature, and turnover rate. Emissions from routine

losses were calculated using EPA's Storage Tank Emissions Calculation Application Version 5.2 (Tanks5.2) and the output is presented in Appendix A of the AQIA.

Projected Emissions

The proposed Project is expected to have long-term air quality impacts as shown in **Table 4.3-7** (Restating Table 4-4, AQIA). Emission calculations are available in Appendix A of the AQIA.

**Table 4.3-7 (Restating Table 4-4, AQIA)
Post-Project Max (Emergency Operations) Emissions**

Emissions Source	Pollutant (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Generator Emissions	4.97	17.74	92.24	0.18	0.53	0.53
Cooling Tower Emissions	-	-	-	-	0.58	0.12
Fuel Storage Emissions	0.02	-	-	-	-	-
Mobile and Area Emissions	1.90	0.86	3.53	0.01	0.54	0.17
Total Emissions	6.89	18.6	95.77	0.19	1.65	0.82
SJVAPCD Threshold	25	25	NA	27	15	15
Is Threshold Exceeded After Mitigation?	No	No	No	No	No	No

**Table 4.3-8 (Restating Table 4-5, AQIA)
Post-Project Mobile Only Emissions**

Emissions Source	Pollutant (lbs/day)	
	ROG	NO _x
Mobile Emissions	1.34	1.68
SJVAPCD Threshold	137	137
Is Threshold Exceeded After Mitigation?	No	No

As shown in the above tables, operations-related emissions, as calculated in Appendix A of the AQIA, would not exceed the EKAPCD significant threshold levels. Therefore, the Project is less-than-significant for operational emissions.

Potential Impacts on Sensitive Receptors

Sensitive receptors are defined as locations where young children, chronically ill individuals, the elderly, or people who are more sensitive than the general population reside, such as schools, hospitals, nursing homes, and daycare centers. The nearest residential sensitive receptor to the proposed Project is located adjacent to portions of the Project's Sites. The below table lists the known non-residential sensitive receptors within 2 miles of the Project Site. Discussion of health risks and risks to sensitive receptors is addressed in detail below in Section 4.6 of the AQIA.

**Table 4.3-9 (Restating Table 4-16, AQIA)
Sensitive Receptors Located <2 Miles to Project Site**

Receptor	Type of Facility	Distance from Project (miles)	Direction from Project
Inyokern Elementary School	School	0.23	Southwest
Inyokern Senior Center	Assisted Living	0.24	Southwest

Potential Impacts to Visibility to Nearby Class 1 Areas

Visibility impact analyses are intended for stationary sources of emissions which are subject to the PSD requirements in 40 CFR Part 60; they are not usually conducted for area sources. Under the PSD program, all international parks, national wilderness areas and national memorial parks that exceed 5,000 acres, and of national parks that exceed 6,000 acres are designated as mandatory federal Class I areas which are provided visibility protection under the Clean Air Act. Because the Project's PM₁₀ emissions increases are predicted to be less than the PSD threshold levels, an impact at any Class 1 area or military/airspace operation within 100 kilometers of the Project is extremely unlikely. Therefore, based on the Project's predicted less-than significant PM₁₀ emissions, the Project would be expected to have a *less than significant impact* to visibility at any Class 1 area or military/airspace operation.

Potential Impacts from Carbon Monoxide

Ambient CO concentrations normally correspond closely to the spatial and temporal distributions of vehicular traffic. Relatively high concentrations of CO would be expected along heavily traveled roads and near busy intersections. CO concentrations are also influenced by wind speed and atmospheric mixing. CO concentrations may be more uniformly distributed when inversion conditions are prevalent in the valley. Under certain meteorological conditions, CO concentrations along a congested roadway or intersection may reach unhealthful levels for sensitive receptors, e.g., children, the elderly, hospital patients, etc. This localized impact can result in elevated levels of CO, or "hotspots," even though concentrations at the closest air quality monitoring station may be below NAAQS and CAAQS.

The localized Project impacts depend on whether ambient CO levels in the Project vicinity would be above or below NAAQS. If ambient levels are below the standards, a Project is considered to have significant impacts if a Project's emissions would exceed one or more of these standards. If ambient levels already exceed a State standard, a Project's emissions are considered significant if they would increase 1-hour CO concentrations by 10 ppm or more or 8-hour CO concentrations by 0.45 ppm or more.

A traffic study was completed for this Project (Ruetters, 2026). According to the traffic study, impacted intersections and roadway segments are anticipated to operate at a LOS of C or better. Therefore, CO "hotspot" modeling was not conducted for this Project, and no concentrated excessive CO emissions are expected to be caused once the proposed Project is completed.

Predicted Health Impacts

Projects are considered for potential health risks wherein a new or modified source of Hazardous Air Pollutants (HAPs) is proposed for a location near an existing residential area or other sensitive receptor when evaluating potential impacts related to HAPs.

The proposed Project would result in emissions of HAPs from construction and operational activities and would be located near existing residents; therefore, an assessment of the potential

risk to the population attributable to emissions of hazardous air pollutants from the proposed Project is required.

To predict the potential health risk to the population attributable to emissions of HAPs from the proposed Project, ambient air concentrations were predicted with dispersion modeling to arrive at a conservative estimate of increased individual carcinogenic risk that might occur as a result of continuous exposure over a 70-year lifetime for operational emissions and over the construction period for construction emissions. Similarly, predicted concentrations were used to calculate non-cancer chronic and acute hazard indices, which are the ratio of expected exposure to acceptable exposure. The basis for evaluating potential health risks is the identification of sources with increased HAPs. HAP emissions from anticipated on-site construction activities, exhaust emissions and ammonia slip from emergency generators, drift emissions from the cooling towers, and fugitive emissions from the storage tanks were evaluated for normal operating conditions (emergency generators operating 50 hours per year).

The proposed emergency generators are based on operation at 100% load. The generator is limited to a maximum of 50 hours per year for maintenance and testing. Operation at 100% load represents the maximum fuel consumption rate and provides a conservative steady-state emission condition for purposes of estimating annual emissions.

Chronic non-cancer hazard indices and lifetime cancer risk are based on annual average concentrations derived from total annual emissions distributed over 8,760 hours per year. Cancer risk calculations further incorporate long-term exposure durations of 70 years for lifetime exposure. Because the generator's annual operating hours are limited and the risk metrics are driven by total annual emissions, short-term operational variability, including elevated emissions during startup or warm-up, has a negligible effect on annual average concentrations and the resulting chronic hazard indices and lifetime cancer risk.

Diesel particulate matter (DPM) does not have an established acute reference exposure level (REL), so brief elevated emissions during startup or warm-up are not evaluated for acute health risk. Overall, the 100% load assumption provides a reasonable, conservative, and technically defensible basis for evaluating potential long-term health risks associated with operation of the emergency generator.

DPM emissions from diesel on-site construction equipment were modeled as an area source for on-site construction activity on the property. Construction DPM was calculated using CalEEMod for on-site construction. DPM emissions from diesel fired emergency generators were modeled as point sources and calculated for maintenance and testing operation using information provided by the manufacturer. DPM emissions were assumed to equal to PM₁₀ emissions. Ammonia Slip emissions from the generators were also modeled as point sources and calculated with the assumption not to exceed 10 ppm. Cooling tower HAP emissions were modeled as area sources and were calculated utilizing a speciation spreadsheet from the San Joaquin Valley Air Pollution Control District (SJVAPCD) for Cooling Tower Water Treatment and references AP-42 Section 13.4 and water characteristics assumptions based on local water supply. Fugitive emissions from fuel storage was also modeled as area sources and calculated using a speciation spreadsheet from the SJVAPCD for Storage Tank Diesel Fugitives. All emission calculations can be found in

Appendix A of the AQIA. A unit emission rate of one gram/second (g/sec) was input to AERMOD for each source. Source parameters such as stack heights and diameter and exhaust velocity and temperature used for the dispersion modeling can be found in the electronic modeling files for Appendix B of the AQIA.

Health risk is determined using the Hotspots Analysis and Reporting Program (HARP) software distributed by the CARB. HARP2 requires peak 1-hour emission rates and annual-averaged emission rates for all pollutants for each modeling source. The assumptions used to calculate the emission rates for the proposed Project are outlined below.

The most recent version of EPA's AMS/EPA Regulatory Model – AERMOD (recompiled for the Lakes ISC-AERMOD View) was used to predict the dispersion of emissions from the proposed Project. The analysis employed all of the regulatory default AERMOD model keyword parameters, including elevated terrain options.

Discrete receptors were placed on residents and businesses near the Project Site and grid receptors were placed on more densely populated areas in order to evaluate residences and businesses within close proximity of the Project Site. A total of 578 discrete off-Site receptors were analyzed. Elevated terrain options were employed even though there is not complex terrain in the Project area. The 7.5-minute DEM terrain data for Inyokern, CA, was processed with AERMAP to identify elevations for the proposed Project.

CARB-provided AERMET processed meteorological datasets for the Edwards Air Force Base monitoring station, calendar years 2012, 2016, 2017, 2019 and 2020 were input to AERMOD (CARB, 2025). This was the most recent available dataset available at the time the modeling was conducted. Rural dispersion parameters were used because the operation and the majority of the land surrounding the facility are considered “rural” under the Auer land use classification method (Auer, 1978).

Plot files generated by AERMOD were uploaded to the Air Dispersion Modeling and Risk Assessment Tool (ADMRT) program in the Hotspots Analysis and Reporting Program Version 2 (HARP2) (CARB, 2015). ADMRT post-processing was used to assess the potential for excess cancer risk and chronic and acute non-cancer effects using the most recent health effects data from the California EPA Office of Environmental Health Hazard Assessment (OEHHA) using the OEHHA Derived Method. HARP2 Site parameters were set for the mandatory minimum pathways of inhalation, homegrown gardens, soil ingestion, dermal, and mother's milk. The non-inhalation pathways used a deposition rate of 0.02 m/s along with all other default parameters. Risk reports were generated using the derived OEHHA analysis method for carcinogenic risk and non-carcinogenic chronic and acute risk. Site parameters are included in the HARP2 output files. Total cancer risk was predicted for the inhalation pathway at each receptor. A hazard index was computed for chronic and acute non-cancer health effects for each applicable endpoint and each receptor.

EKAPCD has set the level of significance for carcinogenic risk at ten in one million, which is understood as the possibility of causing 10 additional cancer cases in a population of one million people. The level of significance for chronic non-cancer risk is a hazard index of 1.0. All receptors

were modeled with a 4-year exposure for construction activities and 70-year exposure for operational emissions.

The carcinogenic risk and the health hazard index (HI) for chronic non-cancer risk at the point of maximum impact (PMI) do not exceed the significance levels of ten in one million (10×10^{-6}) and 1.0, respectively for the proposed Project. The PMIs are identified by receptor location and risk and are provided in Table 4.3-10 (Restating AQIA Table 4-7). The electronic AERMOD and HARP2 output files are provided in Appendix B of the AQIA. All receptors were modeled as residential receptors in order to be conservative.

Table 4.3-10 (Restating Table 4-7, AQIA)
Potential Maximum Impacts Predicted by HARP

	Cancer Risk	Chronic Hazard Index	Acute Hazard Index
Construction	1.89E-06	1.09E-03	--
Operational	3.74E-06	1.00E-03	6.38E-02
Total	5.63E-06	2.10E-03	6.38E-02
EKAPCD Threshold	10.0E-06	1.0	1.0
Exceedance?	No	No	No
Receptor #	1	1	1
UTM Easting (m)	426690.41	426690.41	426690.41
UTM Northing (m)	3945203.01	3945203.01	3945203.01

Note: UTM = Universal Transverse Mercator

As shown above in the above table, the maximum predicted cancer risk for the proposed Project is 5.63E-06. The maximum chronic non-cancer hazard index for the proposed Project is 2.10E-03. The maximum acute non-cancer hazard index for the proposed Project is 6.38E-03. Since the PMI remained below the significance threshold for cancer, chronic, and acute risk, this Project would not have an adverse effect to any of the surrounding communities.

The potential health risk attributable to the proposed Project is determined to be *less than significant* based on the following conclusions:

- Potential carcinogenic risk from the proposed Project is below the significance level of twenty in a million at each of the modeled receptors.
- The hazard index for the potential chronic non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.
- The hazard index for the potential acute non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.
- Therefore, potential risk to the population attributable to emissions of HAPs from the proposed Project would be less than significant.

Potential Impacts from Valley Fever

The proposed Project has the potential to generate fugitive dust and suspend Valley Fever spores with the dust that could then reach nearby sensitive receptors. It is possible that onSite workers could be exposed to Valley Fever spores as fugitive dust is generated during construction. In order to mitigate potential risk, the proposed Project would provide training and personal protective

respiratory equipment to construction workers and provide information to all construction personnel and visitors about Valley Fever. Therefore, the exposure to Valley Fever would be minimized. With the implementation of the mitigation measures, dust from the construction of the proposed Project would not add significantly to the existing exposure level of people to this fungus, including construction workers, and impacts would be reduced to less-than-significant levels.

Potential Impacts from Asbestos

Naturally occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill Projects, and other improvement Projects in some localities. Asbestos may be released into the atmosphere due to vehicular traffic on unpaved roads, during the grading of development Projects, and at mining operations.

Serpentinite and/or ultramafic rocks are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in the counties associated with the Sierra Nevada foothills, the Klamath Mountains, and the Coast Ranges. However, according to information provided by the Department of Conservation Division of Mines and Geology, the Project Site is not located in an area where naturally occurring asbestos is likely to be present (CDCDMG, 2025). Therefore, impacts associated with the exposure of construction workers and nearby sensitive receptors to asbestos would be less than significant.

Odor Impacts and Mitigation

An evaluation is typically conducted for both of the following situations: 1) a potential source of objectionable odors is proposed for a location near existing sensitive receptors, and 2) sensitive receptors are proposed to be located near an existing source of objectionable odors. The criteria for this evaluation are based on the Lead Agency's determination of the proximity to one another of the proposed Project and the sensitive receptors. A sensitive receptor is a location where human populations, especially children, senior citizens and sick persons, are present, and where there is a reasonable expectation of continuous human exposure to pollutants, according to the averaging period for ambient air quality standards, i.e. the 24-hour, 8-hour or 1-hour standards. Commercial and industrial sources are not considered sensitive receptors.

The proposed Project is not considered a source of objectionable odors or odorous compounds. Furthermore, there does not appear to be any significant source of objectionable odors in close proximity that may adversely impact the Project Site when it is in operation. As such, the proposed Project will not be a source of any odorous compounds nor will it likely be impacted by any odorous source.

Impacts to Ambient Air Quality

An ambient air quality analysis was performed to determine if the proposed Project has the potential to impact ambient air quality through a violation of the ambient air quality standards or a substantial contribution to an existing or Projected air quality standard. The basis for the analysis

is dispersion modeling and the Project's long-term air quality impacts shown in **Table 4.3-7** (Restating Table 4-4, AQIA).

The maximum off-Site ground level concentration of each pollutant for the 1-hour, 3-hour, 8-hour, 24-hour and annual periods was predicted using the most recent version of EPA's AMS/EPA Regulatory Model (AERMOD) dispersion software under the Lakes Environmental ISC-AERMOD View interface. CARB-provided AERMET processed meteorological datasets for the Edwards Air Force Base monitoring station, calendar years 2012, 2016, 2017, 2019 and 2020 were input to AERMOD (CARB, 2025). This was the most recent available dataset available at the time the modeling was conducted. All of the regulatory default AERMOD model keyword parameters were employed. Rural dispersion parameters were used for this Project, which differs from the urban setting used in the CalEEMod model. The CalEEMod selection criteria is based on trip distances to the Project Site while the AERMOD selection criteria is based on the majority of the land use surrounding the facility. The majority of the land surrounding the Project Site is considered "rural" under the Auer land use classification method (Auer 1978).

Emissions were evaluated for each pollutant on a short-term (correlating to pollutant averaging period) and long-term (annual) basis, with the exception of CO that was evaluated only for short-term exposures since there are no long term significance thresholds for CO.

The majority of mobile emissions predicted by CalEEMod will occur beyond the Project boundary because of vehicle trips. In order to determine the on-site vehicle emissions an estimated on-site one-way trip distance was determined to be 0.10 miles. The on-site estimated trip distance was then divided by the average trip length used in CalEEMod, 15.69 miles, in order to determine the on-site to off-Site mobile emissions ratio, 0.6%. The total mobile emissions calculated by CalEEMod for the Project were then reduced by 99.4% to estimate the mobile on-site emissions used for ambient air quality modeling.

A fenceline discrete receptor grid was placed around the Project Site in order to evaluate residences and businesses within close proximity of the Project Site. A three-tier grid was used with 25-meter fenceline spacing. The first tier extended 100 meters with 25-meter tier spacing, the second tier extended an additional 200 meters with 50-meter tier spacing and the third tier extended another 400 meters with a tier spacing of 100 meters. A total of 2,259 discrete off-Site receptors were analyzed. Elevated terrain options were employed even though there is not complex terrain in the Project area. The 7.5-minute DEM terrain data for Inyokern, CA, was processed with AERMAP to identify elevations for the proposed Project.

For each pollutant and averaging period modeled, a "total" concentration was estimated by adding the maximum measured background air concentration to the maximum predicted Project impacts. The maximum measured background air concentrations used in this analysis were calculated from measured concentrations at the nearest monitoring stations.

A screen model was run which included a worst-case scenario of the emergency generators operating at 200 hours per year and at the same time. This screen scenario will determine which pollutants need to have a refined model in order to determine compliance. Source parameters such as stack heights and diameter and exhaust velocity and temperature used for the dispersion

modeling can be found in the electronic modeling files for Appendix B of the AQIA. The results of the worst-case air dispersion modeling are presented in **Table 4.3-11** (Restating **Table 4-8**). The electronic AERMOD output files are provided in Appendix C of the AQIA.

Table 4.3-11 (Restating Table 0-7, AQIA)
Predicted Ambient Air Quality Impacts Worst-Case

Pollutant	Averaging Period	Background ($\mu\text{g}/\text{m}^3$)	Project ($\mu\text{g}/\text{m}^3$)	Total ($\mu\text{g}/\text{m}^3$)	NAAQS ($\mu\text{g}/\text{m}^3$)	CAAQS ($\mu\text{g}/\text{m}^3$)
NO ₂	1-Hour	84.3	1,528	1,612	188.68	338
NO ₂	Annual	5.6	2.6	8.2	100	56
SO ₂	1-Hour	2.10	15.5	17.6	196	655
SO ₂	3-Hour	1.89	9.8	11.7	1,300	---
SO ₂	24-Hour	1.31	4.1	5.4	365	105
CO	1-Hour	2,063	7,925	9,988	40,000	23,000
CO	8-Hour	1,031	3,578	4,609	10,000	10,000
PM ₁₀	24-Hour	417	14.4	431	150	50
PM ₁₀	Annual	20	3.8	23.8	---	20
PM _{2.5}	24-Hour	39	14.4	53.3	35	---
PM _{2.5}	Annual	4.5	1.4	5.9	12	12

Pre-Project concentrations of 24-hour PM₁₀, and 24-hour PM_{2.5}, and annual PM₁₀ exceed their respective ambient air quality standards. PM₁₀ and PM_{2.5} are evaluated in accordance with the recommended SJVAPCD recommended significant impact level (SIL) for fugitive PM₁₀ and PM_{2.5} emissions. It is the SJVAPCD's policy to use significant impact levels to determine whether a proposed new or modified source will cause or contribute significantly to an AAQS violation. If a Project's maximum impacts are below the District SIL, the Project is judged to not cause or contribute significantly to an AAQS or PSD increment violation. A comparison of the proposed impact from the Project to the District SIL values is provided in the below table.

Table 4.3-12 (Restating Table 4-9, AQIA)
Comparison of Maximum Modeled Project Impact with Significant Thresholds Worst-Case

Pollutant	Averaging Period	Predicted Concentration ($\mu\text{g}/\text{m}^3$)	SIL ($\mu\text{g}/\text{m}^3$)
PM ₁₀	24-Hour	14.4	10.4
PM ₁₀	Annual	3.8	2.08
PM _{2.5}	24-Hour	14.4	2.5

Table 4.3-11 and **Table 4.3-12** (restating Tables 4-8 and 4-9, respectively, of the AQIA) demonstrates that the maximum impacts attributable to the Project during worst case emergency scenario, when considered in addition to the existing background concentrations, are above the applicable ambient air standards for NO₂ 1-hour, annual PM₁₀, and 24-hour PM₁₀ and PM_{2.5}. Therefore, refined models were run for realistic operating conditions.

Refined Analysis for NO₂ (1-hr), PM₁₀ and PM_{2.5}

The worst-case emergency scenario modeled the emergency engines operating at 200 hours per

year and 24 hours per day. The refined analysis looks at a more realistic non-emergency operation. Emissions for the engines are input based on lbs per hour. The engines were assumed to be tested anytime from 7 AM to 5 PM. Although the engines will typically only be tested individually for up to one hour at any one time, each engine was assumed to operate up to 8 hours/day (7AM-5PM) to conservatively represent 8 different engines operating one hour each in any one day for the 24-hour and annual averaging times. In addition to modeling engines operating at 100% load, various loads of 10%, 25%, 50%, and 75% were also modeled. These scenarios also included hourly emissions that considered the higher emissions factors during engine warm-up periods. During the engine warm-up period the engines were assumed to emit emissions equal to the emission ratings of the engine without SCRs and DPFs equipped. Thus, the worst-case stack condition and the worst-case engine location could be determined from the analysis. All 40 engines were assumed to be tested for annual averages, with emissions proportioned accordingly. The screening results are presented in Appendix C of the AQIA.

Based on the results of the screening analyses, all sources were modeled in the refined analyses for comparisons with CAAQS and NAAQS for pollutants and averaging times that were significant in the screening analysis (1-hour NO₂, 24-hour PM_{2.5} and PM₁₀, and annual PM₁₀). Since the engines will each be tested for up to 50 hours/year, annual average emission rate was included in for annual PM₁₀. Daily emissions based on 8 hour of engine runtime was used for 24-hour PM_{2.5} and PM₁₀.

For the 1-hour NO₂ modeling assessments, the Ambient Ratio Method Version 2 (ARM2) was used in the modeling analyses with an in-stack NO₂/NO_x ratio of 0.5 (50%) based on EPA Guideline requirements. This is conservative as the NO₂/NO_x ratios for these types of engines are on the order of 10%, as per the EPA's ISR database.

As the screen analysis showed all maximum impacted receptors within the first tier of the receptor grid, the refined analysis reduced the receptor grid to the first tier only. The below table summarizes the refined model run results.

Table 4.3-13 (Restating Table 4-10, AQIA)
Predicted Ambient Air Quality Impacts Refined

Pollutant	Averaging Period	Background ($\mu\text{g}/\text{m}^3$)	Project ($\mu\text{g}/\text{m}^3$)	Total ($\mu\text{g}/\text{m}^3$)	NAAQS ($\mu\text{g}/\text{m}^3$)	CAAQS ($\mu\text{g}/\text{m}^3$)
NO ₂	1-Hour	84.3	53.5	137.8	188.68	338
PM ₁₀	24-Hour	417	5.95	423	150	50
PM ₁₀	Annual	20	0.83	20.81	---	20
PM _{2.5}	24-Hour	39	1.94	40.4	35	---

Pre-Project concentrations of 24-hour PM₁₀, and 24-hour PM_{2.5}, and annual PM₁₀ exceed their respective ambient air quality standards. PM₁₀ and PM_{2.5} are evaluated in accordance with the recommended SJVAPCD recommended significant impact level (SIL) for fugitive PM₁₀ and PM_{2.5} emissions. It is SJVAPCD's policy to use significant impact levels to determine whether a proposed new or modified source will cause or contribute significantly to an AAQS violation. If a Project's maximum impacts are below the District SIL, the Project is judged to not cause or

contribute significantly to an AAQS or PSD increment violation. A comparison of the proposed impact from the Project to the District SIL values is provided in the below table.

Table 4.3-14 (Restating Table 4-11, AQIA)

Comparison of Maximum Modeled Project Impact with Significant Thresholds Refined

Pollutant	Averaging Period	Predicted Concentration ($\mu\text{g}/\text{m}^3$)	SIL ($\mu\text{g}/\text{m}^3$)
PM ₁₀	24-Hour	5.95	10.4
PM ₁₀	Annual	0.83	2.08
PM _{2.5}	24-Hour	1.94	2.5

The above table demonstrates that the maximum impacts attributable to the Project's 1-hour NO₂ for the refined analysis, when considered in addition to the existing background concentrations, are below the applicable ambient air standards and would be *less-than-significant*.

Because the Project's refined modelled PM₁₀ and PM_{2.5} are below the SJVAPCD's significance levels for 24-hour and annual concentrations, the Project's contribution to potential violations of ambient air quality standards would be *less-than-significant*.

Additionally, a screening level analysis of construction related emissions was conducted even though they are short term in duration and considered less than significant if they meet the annual threshold set forth by EKAPCD. The results of the screening air dispersion modeling are presented in the below table. The electronic AERMOD output files are provided in Appendix C of the AQIA.

Table 4.3-15 (Restating Table 0-8, AQIA)

Predicted Ambient Air Quality Impacts Construction

Pollutant	Averaging Period	Background ($\mu\text{g}/\text{m}^3$)	Project ($\mu\text{g}/\text{m}^3$)	Total ($\mu\text{g}/\text{m}^3$)	NAAQS ($\mu\text{g}/\text{m}^3$)	CAAQS ($\mu\text{g}/\text{m}^3$)
NO ₂	1-Hour	84.3	75.2	159.5	188.68	338
NO ₂	Annual	5.6	0.6	6.2	100	56
SO ₂	1-Hour	2.10	0.5	2.6	196	655
SO ₂	3-Hour	1.89	0.17	2.06	1,300	---
SO ₂	24-Hour	1.31	0.04	1.35	365	105
CO	1-Hour	2,063	218	2,281	40,000	23,000
CO	8-Hour	1,031	36.5	1,067	10,000	10,000
PM ₁₀	24-Hour	417	2.05	419	150	50
PM ₁₀	Annual	20	0.23	20.2	---	20
PM _{2.5}	24-Hour	39	0.57	39.6	35	---
PM _{2.5}	Annual	4.5	0.07	4.6	12	12

Pre-Project concentrations of 24-hour PM₁₀, and 24-hour PM_{2.5}, and annual PM₁₀ exceed their respective ambient air quality standards. PM₁₀ and PM_{2.5} are evaluated in accordance with the recommended SJVAPCD recommended significant impact level (SIL) for fugitive PM₁₀ and PM_{2.5}

emissions. It is the SJVAPCD's policy to use significant impact levels to determine whether a proposed new or modified source will cause or contribute significantly to an AAQS violation. If a Project's maximum impacts are below the District SIL, the Project is judged to not cause or contribute significantly to an AAQS or PSD increment violation. A comparison of the proposed impact from the Project to the District SIL values is provided in the below table.

Table 4.3-16 (Restating Table 0-9, AQIA)
Comparison of Maximum Modeled Project Impact with Significant Thresholds
Construction

Pollutant	Averaging Period	Predicted Concentration ($\mu\text{g}/\text{m}^3$)	SIL ($\mu\text{g}/\text{m}^3$)
PM ₁₀	24-Hour	2.05	10.4
PM ₁₀	Annual	0.23	2.08
PM _{2.5}	24-Hour	0.57	2.5

Table 4.3-15 and **Table 4.3-16** (restating AQIA Tables 4-12 and 4-13, respectively) demonstrates that the maximum impacts attributable to the Project's construction emissions, when considered in addition to the existing background concentrations, are below the applicable ambient air standards for all criteria pollutants and are therefore considered less than significant.

Impacts to Greenhouse Gases and Climate Change

The proposed Project's construction and operational GHG emissions were estimated using the CalEEMod program, EMFAC2014, and the California Climate Action Registry General Reporting Protocol (Version 3.1). The below table presents the Project's annual GHG emissions.

Table 4.3-17 (Restating Table 0-10, AQIA)
Estimated Annual GHG Emissions (MT/Year)

Source	CO₂e
Total Construction Emissions	5,239
<i>Annualized Construction Emissions¹</i>	174.6
<i>Miscellaneous Operations (Area, Mobile, waste, water)</i>	637.6
<i>Emergency Generators</i>	1,317
<i>Refrigerant Leakage</i>	250.8
<i>Energy Emissions (Off-Site)²</i>	210,262
Total On-Site Operational Emissions	2,205
Total On-Site Project Emissions	2,379
EKAPCD's Significance Threshold	25,000
Significance Threshold Exceeded?	No

¹ Per South Coast AQMD's Methodology

² Emissions from power generation across the SCE system, and as such they are reported by SCE on a specific generating facility basis. These emissions are not part of the Project facility inventory.

Additionally, the proposed Project substations may feature circuit breakers that contain SF₆ gas, used as an insulator and an arc suppressor in the breakers. SF₆ is inert and non-toxic and is encapsulated in the breaker assembly. SF₆ is a GHG with substantial global warming potential

because of its chemical nature and long residency time within the atmosphere. However, under normal conditions, it would be completely contained in the equipment and SF₆ would be released only in the unlikely event of a failure, leak, or crack in the circuit breaker housing. New circuit breaker designs have been developed to minimize the potential for leakage, compared to that of past designs, and the amount of SF₆ that could be released by facility equipment would be minimal. At this time SF₆ circuit breakers are not proposed and even with the addition of SF₆ circuit breaks the annual threshold for GHG emissions would not be exceeded.

The Project will not result in the emissions of hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), the other gases identified as GHG in AB32. The proposed Project will be subject to any regulations developed under AB32 as determined by CARB. As demonstrated in Table 4-14, the Project would emit less than EKAPCD's significance threshold of 25,000 MT per year. The proposed Project would therefore have a *less than significant* GHG impact.

4.3.4.2 Cumulative Impacts

By its very nature, air pollution has a cumulative impact. The District's nonattainment status is a result of past and present development within the MDAB. Furthermore, attainment of ambient air quality standards can be jeopardized by increasing emissions-generating activities in the region. No single Project would be sufficient in size, by itself, to result in nonattainment of the regional air quality standards. Instead, a Project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development within the Basin.

When assessing whether there is a new significant cumulative effect, the Lead Agency shall consider whether the incremental effects of the Project are cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual Project are significant when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects [CCR §15064(h)(1)]. Per CEQA Guidelines §15064(h)(3), a Lead Agency may determine that a Project's incremental contribution to a cumulative effect is not cumulatively considerable if the Project will comply with the requirements in a previously approved plan or mitigation program, including, but not limited to an air quality attainment or maintenance plan that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the Project is located.

Attachment A of Kern County's *Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports* states "The following threshold are defined for purposes of determining cumulative effects as the baseline for "considerable". Projects in...Kern County Air Pollution Control District will be subject to the following significance thresholds". The thresholds outlined in the guidelines mirror the individual Project significance thresholds of 15 tons per year for PM₁₀ and 25 tons per year for NO_x and ROG. Therefore, owing to the inherently cumulative nature of air quality impacts, the threshold for whether a Project would make a cumulatively considerable contribution to a significant cumulative impact is simply whether the Project would exceed Project-level thresholds.

Additionally, the EKAPCD Guidelines for Implementation of CEQA also states that “*Unless otherwise specified in published/adopted thresholds of significance and guidelines, a Project's potential contribution to cumulative impacts shall be assessed utilizing the same significance criteria as those for Project specific impacts*”¹. Based on the analysis conducted for this Project, it is individually *less than significant*. This AQIA, however, also considered impacts of the proposed Project in conjunction with the impacts of other Projects previously proposed in the area. The following cumulative impacts were considered:

- Cumulative O₃ Impacts (ROG and NO_x) from numerous sources within the region including transport from outside the region. O₃ is formed through chemical reactions of ROG and NO_x in the presence of sunlight.
- Cumulative CO Impacts produced primarily by vehicular emissions.
- Cumulative PM₁₀ Impacts from within the region and locally from the various Projects. Such Projects may cumulatively produce a significant amount of PM₁₀ if several Projects conduct grading or earthmoving activities at the same time; and
- Hazardous Air Pollutant (HAP) Impacts on sensitive receptors.

Cumulative Regional Air Quality Impacts

The most recent, certified MDAB Emission Inventory data available from the EKAPCD is based on data gathered for the 2020 annual inventory. This data will be used to assist the EKAPCD in demonstrating attainment of Federal 1-hour O₃ Standards. The below table provides a comparative look at the impacts proposed by the proposed Project to the MDAB Emissions Inventory.

**Table 4.3-18 (Restating Table 5-1, AQIA)
Comparative Analysis Based on MDAB 2026 Inventory**

Emissions Inventory Source	Pollutant (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Kern County – 2026 ²	3,421.51	7,044.87	17,699.2	727.81	4,821.29	1,903.11
MDAB – 2024 ²	163,609.4	33,663.2	59,495.4	1,630.82	40,452.2	9,621.4
Proposed Project	6.89	18.6	95.77	0.19	1.65	0.82
Proposed Project's % of Kern ¹	0.2014%	0.2640%	0.5411%	0.0261%	0.0342%	0.0431%
Proposed Project's % of MDVAB ¹	0.0042%	0.0553%	0.1610%	0.0117%	0.0041%	0.0085%

Source: CARB, 2025

Notes: 1) Percentages equaling 0.0000 could represent a percent <0.00005.

2) This is the latest inventory available as of February 2026, excluding Natural Sources.

As shown the above table, the proposed Project does not pose a substantial increase to basin emissions, as such basin emissions would be essentially the same if the Project is approved. The below tables provide CARB Emissions Inventory Projections for the year 2030 for both the SJVAB and the Kern County portion of the air basin. Looking at the SJVAB Emissions predicted by the CARB year 2030 emissions inventory, the Kern County portion of the air basin is a moderate source of the emissions. The proposed Project produces a small portion of the total emissions in both Kern County and the entire MDAB.

¹ EKAPCD Guidelines for Implementation of CEQA, Page 22

Table 4.3-19 (Restating Table 5-2, AQIA Table 0-11)
Emission Inventory MDAB 2030 Projection – Tons per Year

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Total Emissions	17,155.73	33,021.19	5,5458.1	1,631.185	41,777.54	9,844.78
Percent Stationary Sources	34.51%	42.29%	19.66%	83.04%	26.84%	33.01%
Percent Area-Wide Sources	31.59%	1.86%	4.46%	0.90%	67.06%	47.89%
Percent Mobile Sources	33.90%	55.85%	75.87%	16.07%	6.09%	19.10%
Total Stationary Source Emissions	5,919.93	13,963.08	10,904.01	1,354.51	11,213.90	3,249.96
Total Area-Wide Source Emissions	5,419.15	615.02	2,475.79	14.6	2,8017.77	4,714.34
Total Mobile Source Emissions	5,816.27	18,443.45	42,078.30	262.07	2,545.51	1,880.48

Source: CARB, 2025

Note: Total may not add due to rounding.

Table 4.3-20 (Restating Table 0-12, AQIA)
Emission Inventory Kern County 2030 Projection – Tons per Year

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Total Emissions	3,374.79	6,929.16	17,155.00	726.35	5,163.29	1,938.15
Percent Stationary Sources	19.41%	64.47%	29.18%	82.61%	18.42%	15.84%
Percent Area-Wide Sources	19.20%	1.25%	5.23%	0.55%	58.89%	27.80%
Percent Mobile Sources	61.39%	34.28%	65.59%	16.83%	22.68%	56.37%
Total Stationary Source Emissions	655.17	4,467.23	5005.97	600.06	950.82	306.96
Total Area-Wide Source Emissions	647.87	86.50	896.44	4.01	3,040.81	538.74
Total Mobile Source Emissions	2,071.74	2,375.05	11252.59	122.27	1,171.28	1,092.44

Source: CARB, 2025

Note: Total may not add due to rounding.

Table 4.3-21 (Restating Table 5-4, AQIA)
2030 Emissions Projections – Proposed Project, Kern County and SJVAB

	ROG	NO _x	PM ₁₀
Proposed Project	6.89	18.6	1.65
Kern County	3,374.79	6,929.16	5,163.29
MDAB	17,155.73	33,021.19	41,777.54
Proposed Project Percent of Kern County	0.204%	0.268%	0.032%
Proposed Project Percent of MDAB	0.040%	0.056%	0.004%
Kern County Percent of MDAB	19.67%	20.98%	12.36%

As shown above, the proposed Project would pose an inconsequential impact on regional O₃ and PM₁₀ formation. Therefore, this Project would not be considered cumulatively considerable in its contribution to regional O₃ and PM₁₀ impacts.

Cumulative Local Air Quality Impacts

EKAPCD uses a single threshold for the determination of significance for both Project-specific and cumulative impacts. Air quality in EKAB has improved over the past decades, as shown in Section 3.3, which indicates that the single threshold is sufficient for assessing cumulative impacts. The proposed Project would generate less-than-significant impacts to criteria air pollutants; therefore, the Project's incremental contribution to cumulative air quality impacts would not be cumulatively considerable (CEQA Guidelines Section 15064(h)(3)).

Cumulative Hazardous Air Pollutants

Combined HAPs emission impacts from the Project and other existing and planned Projects are considered cumulatively significant when air quality standards are exceeded. Because the Project would not be a significant source of HAPs, the proposed Project would *also not make a cumulatively considerable contribution to significant cumulative HAPs impacts.*

Cumulative Carbon Monoxide (CO) – Mobile Sources

Ambient CO concentrations normally correspond closely to the spatial and temporal distributions of vehicular traffic. Relatively high concentrations of CO would be expected along heavily traveled roads and near busy intersections. CO concentrations are also influenced by wind speed and atmospheric mixing. CO concentrations may be more uniformly distributed when inversion conditions are prevalent in the valley. Under certain meteorological conditions, CO concentrations along a congested roadway or intersection may reach unhealthful levels for sensitive receptors, e.g., children, the elderly, hospital patients, etc. This localized impact can result in elevated levels of CO, or “hotspots,” even though concentrations at the closest air quality monitoring station may be below NAAQS and CAAQS.

The localized Project impacts depend on whether ambient CO levels in the Project vicinity would be above or below NAAQS. If ambient levels are below the standards, a Project is considered to have significant impacts if its emissions would exceed one or more of these standards. If ambient levels already exceed a State standard, a Project’s emissions are considered significant if they would increase 1-hour CO concentrations by 10 ppm or more or 8-hour CO concentrations by 0.45 ppm or more.

A traffic study was completed for this Project (Ruettgers, 2026). According to the traffic study, impacted intersections and roadway segments are anticipated to operate at a LOS of C or better. Therefore, CO “hotspot” modeling was not conducted for this Project, and no concentrated excessive CO emissions are expected to be caused once the proposed Project is completed.

Consistency with the Air Quality Attainment Plan

Air quality impacts from proposed Projects within the eastern Kern County are controlled through policies and provisions of the EKAPCD and the Kern County General Plan (Kern County 2004). In order to demonstrate that a proposed Project would not cause further air quality degradation in either of the EKAPCD’s plan to improve air quality within the air basin or federal requirements to meet certain air quality compliance goals, each Project should also demonstrate consistency with the EKAPCD’s adopted AQAP. The EKAPCD is required to submit a “Rate of Progress” document to the CARB that demonstrates past and planned progress toward reaching attainment for all criteria pollutants. The California Clean Air Act (CCAA) requires the local air districts with severe or extreme air quality problems to provide for a 5 percent reduction in non-attainment emissions per year. The Attainment Plans prepared for the Eastern Kern County by the EKAPCD complies with this requirement. CARB reviews, approves, or amends the document and forwards

the plan to the U.S. Environmental Protection Agency (U.S. EPA) for final review and approval within the State Implementation Plan (SIP).

Air pollution sources associated with stationary sources are regulated through the EKAPCD permitting authority under the New and Modified Stationary Source Review Rule (EKAPCD Rule 210.1). Owners of any new or modified equipment that emits, reduces or controls air contaminants, except those specifically exempted by the EKAPCD, are required to apply for an Authority to Construct and Permit to Operate (EKAPCD Rule 201). Additionally, best available control technology (BACT) is required on specific types of stationary equipment and are required to offset both stationary source emission increases along with increases in cargo carrier emissions if the specified threshold levels are exceeded (EKAPCD Rule 210.1, III.B.). Through this mechanism, the EKAPCD would ensure that all stationary sources within a Project area would be subject to the standards of the EKAPCD to ensure that new developments do not result in cumulatively considerable contributions in significant cumulative stationary sources of criteria air pollutants.

Required Evaluation Guidelines

CEQA Guidelines and the Federal Clean Air Act (Sections 176 and 316) contain specific references on the need to evaluate consistency between a proposed Project and the applicable AQAP for the Project Site. To accomplish this, CARB has developed a three-step approach to determine Project conformity with the applicable AQAP:

1. Determination that an AQAP is being implemented in the area where the Project is being proposed. The EKAPCD has implemented the current, modified AQAP as approved by CARB.
2. The proposed Project must be consistent with the growth assumptions of the applicable AQAP. The proposed Project is included in the employment increases Projected in the Kern County General Plan.
3. The Project must contain in its design all reasonably available and feasible air quality control measures. The proposed Project incorporates various policy and rule-required implementation measures that will reduce related emissions.

The CCAA and AQAP identify transportation control measures as methods to further reduce emissions from mobile sources. Strategies identified to reduce vehicular emissions such as reductions in vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, and traffic congestion, in order to reduce vehicular emissions, can be implemented as control measures under the CCAA as well. Additional measures may also be implemented through the building process such as providing electrical outlets on exterior walls of structures to encourage use of electrical landscape maintenance equipment or measures such as electrical outlets for electrical systems on diesel trucks to reduce or eliminate idling time.

As the growth represented by the proposed Project was anticipated by the Kern County General Plan and incorporated into the AQAP, conclusions may be drawn from the following criteria:

1. The findings of the 1-mile radius analysis conducted using review of Traffic Analysis Zones (TAZ) data show that sufficient employment increases are planned for the Project area as

the TAZs in the Project area calls for an increase in employment of 573 between the years of 2024 and 2049 which is enough to account for the 30 full time employees the Project proposes;

2. That, by definition, the proposed emissions from the Project are below the EKAPCD's established emissions impact thresholds; and
3. That the primary source of emissions from the Project would be motor vehicles which would be licensed through the State of California and whose emissions are already incorporated into the CARB's Eastern Kern County's Emissions Inventory.

Based on the above factors, the Project *is consistent with the AQAP*.

Consistency with the Kern Council of Government's Regional Conformity Analysis

The Kern Council of Governments (Kern COG) Regional Conformity Analysis Determination demonstrates that the regional transportation expenditure plans (Destination 2030 Regional Transportation Plan and Federal Transportation Improvement Program) in the Kern County portion of the Mojave Desert air quality attainment areas would not hinder the efforts set out in the CARB's SIP for each area's non-attainment pollutants (CO, O₃ and PM₁₀). The analysis uses an adopted regional growth forecast, governed by both the adopted Kern COG Policy and Procedure Manual and a Memorandum of Understanding between the County of Kern and Kern COG (representing itself and outlying municipal member agencies).

The Kern COG Regional Conformity Analysis considers General Plan Amendments (GPA) and zone changes that were enacted at the time of the analysis as Projected growth within the area based on land use designations incorporated within the Kern County General Plan. Land use designations that are altered based on subsequent GPAs that were not included in the Regional Conformity Analysis were not incorporated into the Kern COG analysis. Consequently, if a proposed Project is not included in the regional growth forecast using the latest planning assumptions, it may not be said to conform to the regional growth forecast.

Item 2 under Section 3 – Model Maintenance Procedure, of the Kern COG Regional Transportation Modeling Policy and Procedure Manual states “Land Use Data – General Plan land capacity data or “Build -out capacity” is used to distribute the forecasted County totals, and may be updated as new information becomes available, and is revised in regular consultation with local planning departments.”

Under the current Kern County Zoning, the Project Site is zoned M-2 PD (Medium Industrial, Precise Development Combining) and designated as 7.2/2.5 (Service Industrial/Flood Hazard) under the Inyokern Specific Plan see Figure XX (Restating AQIA Figure 6-1).

In addition, a review of Kern COG regional forecast was prepared to evaluate if the Project area growth forecast would be sufficient to account for the Project's Projected employment increase. The adopted growth forecasts are assigned to TAZs; a review of the growth forecast one mile from a Project presents a conservative assessment of the Project area. Given there are only 30 full time employees as a result of the Project the current growth forecast of 573 jobs from 2024 to 2049

accounts for the proposed employment increase, therefore, the Project is consistent with the regional growth forecast.

Figure 4.3-1 (Restating Figure 6-1, AQIA)
Kern County Zoning in Inyokern Specific Plan



4.3.5 Mitigation and Other Recommended Measures

As the estimated construction, operational, and decommissioning emissions from the proposed Project would be less than significant, no specific mitigation measures would be required. However, to ensure that Project is in compliance with all applicable EKAPCD rules and regulations and emissions are further reduced, the applicant would be required to implement and comply with a number of measures by regulation and would result in further emission reductions through their inclusion in Project construction and long-term design.

The following measures have been applied to the Project per EKAPCD rules and regulations and conditions of approval and through the CalEEMod model analysis.

MM 4.3-1 Applicable PM10 Reduction Measures. As the Project must be completed in compliance with EKAPCD Rules and Regulations, dust control measures must be taken to ensure compliance specifically during grading and the construction phase.

- (a) Land Preparation, Excavation, and/or Demolition. The following dust control measures should be implemented:
- (b) All soil excavated or graded should be sufficiently watered to prevent excessive dust. Watering should occur as needed with complete coverage of disturbed soil areas. Watering should be a minimum of three times daily on unpaved/untreated roads and on disturbed soil areas with active operations.²
- (c) All clearing, grading, earth moving, and excavation activities should cease during periods of winds greater than 20 mph (averaged over one hour), if disturbed material is easily windblown, or when dust plumes of 20% or greater opacity impact public roads, occupied structures or neighboring property.
- (d) All fine material transported offsite should be either sufficiently watered or securely covered to prevent excessive dust.
- (e) If more than 5,000 cubic yards of fill material will be imported or exported from the Site, then all haul trucks should be required to exit the Site via an access point where a gravel pad or grizzly has been installed.
- (f) Areas disturbed by clearing, earth moving, or excavation activities should be minimized at all times.
- (g) Stockpiles of soil or other fine loose material shall be stabilized by watering or other appropriate method to prevent wind-blown fugitive dust.
- (h) Where acceptable to the fire department, weed control should be accomplished by mowing instead of disking, thereby, leaving the ground undisturbed and with a mulch covering.

MM 4.3-2 Building (Structure) Construction. After clearing, grading, earth moving and/or excavating, the following dust control practices should be implemented:

- (a) Once initial leveling has ceased all inactive soil areas within the construction Site should either be seeded and watered until plant growth is evident, treated with a dust palliative or similar, or watered three times daily until soil has sufficiently crusted to prevent fugitive dust emission.
- (b) All active disturbed soil areas should be sufficiently watered to prevent excessive dust, but no less than three times per day.

MM 4.3-3 Vehicular Activities. During all phases of construction, the following vehicular control measures should be implemented:

(a) Dust

- Onsite vehicle speed should be limited to 15 mph².
- All areas with vehicle traffic should be paved, treated with dust palliatives, or watered a minimum of three times daily.
- Streets adjacent to the Project Site should be kept clean and accumulated silt removed.
- Access to the Site should be by means of an apron into the Project from adjoining surfaced roadways. The apron should be surfaced or treated with dust palliatives. If operating on soils that cling to the wheels of the vehicles, a grizzly or other such device should be used on the road exiting the Project, immediately prior to the pavement, in order to remove most of the soil material from the vehicle's tires.

(b) Tailpipe Emissions

- Properly maintain and tune all internal combustion engine powered equipment.
- Require employees and subcontractors to comply with California's idling restrictions for compression ignition engines.
- Use low sulfur (CARB) diesel fuel.
- Recommended Measures to Reduce Equipment Exhaust
- Implement the following Best Management Practices, to the extent feasible, to further reduce exhaust emissions:
 - Maintain all construction equipment as recommended by manufacturer manuals.
 - Shut down equipment when not in use for extended periods.
 - Construction equipment shall operate no longer than eight (8) cumulative hours per day.
 - Use electric equipment for construction whenever possible in lieu of diesel or gasoline powered equipment.
 - Curtail use of high-emitting construction equipment during periods of high or excessive ambient pollutant concentrations.
 - All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NO_x emissions.
 - On-Road and Off-Road diesel equipment shall use diesel particulate filters if permitted under manufacturer's guidelines.
 - On-Road and Off-Road diesel equipment shall use cooled exhaust gas recirculation (EGR) if permitted under manufacturer's guidelines.

- All construction workers shall be encouraged to shuttle (car-pool) to retail establishments or to remain on-site during lunch breaks.
- All construction activities within the Project area shall be discontinued during the first stage smog alerts.
- Construction and grading activities shall not be allowed during first stage O3 alerts. First stage O3 alerts are declared when the O3 level exceeds 0.20 ppm (1-hour average).

Level of Significance After Mitigation

The proposed Project would have short-term air quality impacts due to construction activities as well as vehicular emissions. Both of these impacts would be mitigated and *were found to be less than significant before and after mitigation*.

The proposed Project would result in long-term air quality impacts due to operational emissions. These impacts were found to *be less than significant*.

The proposed Project would result in impacts to greenhouse gases and climate change due to construction and operational emissions. These impacts *were found to be less than significant*.

The proposed Project, in conjunction with other past, present, and foreseeable future Projects, would result in cumulative short-term and long-term impacts to air quality. The proposed Project's incremental contribution to these impacts would be below thresholds of significance and would not be considered cumulatively considerable. Therefore, the Project's contribution to cumulative impacts *was found to be less than significant*.

The proposed Project, in conjunction with other past, present, and foreseeable future Projects, would result in cumulative long-term impacts to global climate change. The proposed Project's incremental contribution to these impacts will be mitigated to the extent feasible and are considered *less than significant*.

4.4 Biological Resources

Introduction

This section evaluates the potential impacts of the Project on biological resources, including special-status plant and animal species, sensitive natural communities, jurisdictional aquatic features, and wildlife movement corridors. The analysis addresses existing conditions at and surrounding the Project site, potential direct and indirect impacts associated with Project construction and operation, and the effectiveness of proposed avoidance, minimization, and mitigation measures.

The biological analysis is based on relevant information from the Project Description, the information, analysis, and conclusions presented in the Biological Analysis Report (BAR) prepared for the Project (Appendix D.1), and the other background information.

CEC SPPE Appendix B requirements applicable to this resource area are addressed in §4.4.7 of this section.

CEC SPPE Appendix B — Section (g)(13) Applicability

(13) Biological Resources

(A) A regional overview and discussion of terrestrial and aquatic biological resources, with particular attention to sensitive biological resources within ten (10) miles of the project. In the discussion include a list of the USGS topographic quadrangle(s) utilized to search records from the California Natural Diversity Database (CNDDDB), and a citation which includes the date the CNDDDB was accessed. Include a map at a scale of 1:6,000 (under confidential cover) and at 1:350,000 (for public) showing sensitive biological resource location(s) in relation to the project site and related facilities and any boundaries of a local Habitat Conservation Plan or similar open space land use plan or designation. Label the biological resources and survey areas as well as the project facilities. Sensitive biological resources include the following:

- (i) species listed under state or federal Endangered Species Acts;
- (ii) species receiving consideration during environmental review under CEQA Guidelines 14 CCR Section 15380;
- (iii) species identified as state Fully Protected;
- (iv) species covered by Migratory Bird Treaty Act;
- (v) species and habitats identified by local, state, and federal agencies as needing protection, including but not limited to those identified by the CNDDDB, or where applicable, in Local Coastal Programs or in relevant decisions of the California Coastal Commission or other responsible agency;
- (vi) locally significant species that are rare or uncommon in a local context such as county or region or is so designated in local or regional plans, policies, or ordinances;
- (vii) plant species listed as rare under the California Native Plant Protection Act;

(viii) established native resident or migratory wildlife corridors or wildlife nursery sites.

(B) Include a list of the species and habitat(s) actually observed and those with a potential to occur within 1 mile of the project site and 1,000 feet from the outer edge of linear facility corridors.

Maps or aerial photographs shall include the following:

(i) Detailed maps at a scale of 1:6,000 or color aerial photographs taken at a recommended scale of 1-inch equals 500 feet (1:6,000) with a 30 percent overlap (provided under confidential cover) and 1:350,000 (for public viewing) that show the proposed project site and related facilities, biological resources including, but not limited to, those found during project-related field surveys and in records from the CNDDDB, and the associated areas where biological surveys were conducted. Label the biological resources and survey areas as well as the project facilities.

(ii) Provide an aerial map of the isopleth graphic depicting modeled nitrogen deposition rates. The geographical extent of the nitrogen deposition map(s) should include the entire plume and a radius of 6 (six) miles from the source, specifically identifying acres of sensitive habitat(s) within each isopleth. Modeling parameters and files shall be provided.

(iii) An aerial photo depicting state and federal jurisdictional features including state waters and wetlands delineated on maps at a scale of (1:2,400) showing any potential jurisdictional features delineated out to 250 feet from the edge of disturbance if jurisdictional features occur within 250 feet of the project site and/or related facilities that would be included with a US Army Corps of Engineers Section 404 Permit application, Regional Water Quality Control Board (RWQCB) application, or California Department of Fish and Wildlife Section 1600 et seq. permit requirements.

(iv) Provide Geographic Information System (GIS) data (shape and/or geodatabase files) for all data mapped for biological resources.

(C) A discussion of the biological resources at the proposed project site and related facilities. Related facilities include, but are not limited to, laydown and parking areas, gas and water supply pipelines, transmission lines, and roads. The discussion shall address the distribution of vegetation community types, denning or nesting sites, population concentrations, migration corridors, breeding habitats, and other appropriate biological resources including the following:

(i) A list of sensitive species and habitats with a potential to occur (as defined in (A) above) and include status (state, federal, California Native Plant Society, global rank, state rank).

(ii) Perform nitrogen deposition modeling including the complete citation for references used in determining deposition rates and location. Specify the amount of total annual nitrogen deposition in kilograms of nitrogen per hectare per year (kg N/ha/yr) in special status species habitats and vegetation types for wet and dry deposition. Describe habitat and species potentially affected.

(D) A description and results of all field studies and specialized surveys (e.g., focused and protocol) used to provide biological baseline information about the project site and associated facilities. Include copies of the CNDDDB records and field survey forms completed by the applicant's biologist(s). Identify the date(s) the surveys were completed, methods used to complete the surveys, and the name(s) and qualifications of the biologists conducting the surveys. Include:

(i) Current biological resources surveys conducted using appropriate field survey protocols (include references) during the appropriate season(s). State and federal agencies with jurisdiction shall be consulted for field survey protocol guidance prior to surveys if a protocol exists.

(ii) If the project or any related facilities could impact federal or state jurisdictional wetland, provide completed Army Corps of Engineers wetland delineation forms and/or determination of wetland status pursuant to Coastal Act or CDFW requirements, as applicable to the location, name(s) and qualifications of biologist(s) completing the delineation, the results of the delineation and a table showing jurisdictional features including state waters and wetland acreage amounts to be impacted.

(E) Impacts discussion of all impacts (direct, indirect, and cumulative) to biological resources from project site preparation, construction activities, plant operation, maintenance, closure, and decommissioning. Discussion shall also address sensitive species habitat impacts from air emissions (i.e. nitrogen deposition).

(F) A discussion of all feasible mitigation measures and an evaluation of their anticipated efficacy in reducing the level of impacts, including, but not limited to the following:

(i) All measures proposed to avoid and/or reduce adverse impacts to biological resources.

(ii) All off-site habitat mitigation such as habitat improvement or compensation including management, and an identification of appropriate agency contacts for coordination and verification of proposed habitat mitigation measures.

(iii) Educational programs to enhance employee awareness during construction and operation to protect biological resources.

(G) A discussion of compliance and monitoring programs to ensure the effectiveness of impact avoidance and mitigation measures incorporated into the project.

(H) Submit copies of any preliminary correspondence between the project applicant and state and federal resource agencies regarding whether federal or state permits from other agencies such as the U. S. Fish and Wildlife Service, the National Marine Fisheries Service, the U.S. Army Corps of Engineers, the CDFW, and the RWQCB will be required for the proposed project.

All Section (g)(13) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.4.1–4.4.4. The Appendix B supplemental disclosure is provided in Section 4.4.7. A cross-reference table mapping each Appendix B criterion to its

location in this document is provided in Table 4.4-A, immediately preceding Section 4.4.4.

4.4.1 Environmental Setting

Biological resources within the Project area were evaluated based on the information, analysis, and conclusions presented in the Biological Analysis Report (BAR) prepared for the Project (Appendix D.1). The BAR defines the Biological Study Area (BSA) as the Project site and a surrounding 250-foot buffer where access was feasible (BAR Section 2.1; Figure 2-1).

The BSA is situated on the western perimeter of the Mojave Desert, in the unincorporated community of Inyokern in the northeastern area of Kern County. The BSA is not designated by the California Department of Conservation (DOC) as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. The DOC designates the Project site as non-agricultural and natural vegetation, and semi-agricultural and rural commercial land. No lands within the Project site are subject to a Williamson Act Land Use contract.

Physical Setting

Topography: The topography of the BSA is generally flat, although the terrain is slightly more variable where anthropogenic disturbances have occurred (i.e., OHV roads) or have influenced drainage patterns. The topography gently slopes from south to north, with an elevation that ranges between 2,435 and 2,416 feet above mean sea level (AMSL). The foothills of the Sierra Nevada Mountain Range are approximately four miles west of the BSA, while the El Paso Mountain Range is approximately six miles to the south.

Climate: The region in which the BSA is located is characterized by a typical desert climate, with hot, dry, windy summers and mild, dry winters. Average high temperatures range from 59.7°F in December to 102.7°F in July, and it is not uncommon for temperatures to exceed 100.0°F during the summer (WRCC 2025). Average low temperatures range from 30.2°F in December to 66.2°F in July. Precipitation events are variable from year to year, with an average of 4.17 inches of rain falling mainly between December and March, although the region is known to experience sudden thunderstorms in the summer months.

Soils: The United States Department of Agriculture, Natural Resources Conservation Service (NRCS 2025) Web Soil Survey database contains no digital data for the region in which the BSA is located. In general, the BSA is underlain by sandy soils, which are characteristic of arid, desert environments and often formed in alluvium (sediments deposited by water) and windblown deposits from mixed sources.

Hydrology: The BSA is in the Grapevine Canyon watershed of the South Lahontan Hydrologic Region (HUC 12-180902050704; USGS 2025). Drainage for most of the watershed in the region

is internal, which accounts for the presence of many dry lakebeds or playas in the region. Most of the perennial rivers are in the northern portion of this hydrologic region. These include the Owens River and Rush Creek in the north. In the south, the Mojave and Amargosa Rivers are present but typically dry for most of the year.

The BSA is almost entirely in an area of one percent Annual Chance Flood Hazard as designated by FEMA, and a small portion on the western boundary of the BSA is within a 0.2 percent Annual Chance Flood Hazard, and a small portion of the northern boundary is within an area of Undetermined Flood Hazard (FEMA 2025, BAR Figure 4-2).

Vegetation and Land Cover

Vegetation and other land cover: Two vegetation community types were identified within the BSA: Desert Scrub and Alkali Desert Scrub (BAR Section 4.2; Figure 4-3). Desert Scrub is the dominant habitat type and occupies approximately 44.95 acres of the BSA, while Alkali Desert Scrub occupies approximately 8.38 acres. These communities consist of shrub-dominated desert scrub vegetation, with Desert Scrub characterized by creosote bush, white bursage, and cheesebush, and Alkali Desert Scrub characterized by allscale, burrobush, and cheesebush (BAR Section 4.2). The BAR determined that no sensitive natural communities are present within the Project footprint (BAR Section 5.2). No jurisdictional waters or wetlands were identified within the Project site. One ephemeral drainage feature was observed near the electrical interconnection route; however, the BAR concluded that the Project would avoid this feature and would not impact jurisdictional aquatic resources (BAR Sections 4.1.5 and 5.3; Figures 4-1 and 4-2).

Project Site Land Uses and Surrounding Context

Land Uses: The trapezoid-shaped Project site is bounded by the following features and uses:

- **Southern Perimeter:** The Project site is bounded by SR-178 along the southern perimeter. A Chevron gas station and convenience store is located in a portion of the southern boundary (APN: 084-010-45) (Photo 4-1). A retail center and outdoor storage operated by Ace Hardware and Storage Facility is located across SR-178 to the south (Photo 4-2 and 4-2.1).

Photo 4-1: Chevron gas station and convenience store



Photo 4-2: Ace Hardware Store



Photo 4-2.1: Ace Hardware Storage Facility



- **Western Perimeter:** The Project site is bounded by Brown Road along the western perimeter. From the intersection of SR-178 and Brown Road, commercial and retail buildings (Photo 4-3, 4-3.1 and 4-3.2) and residential buildings (Photo 4-4) are located on the western side of Brown Road.

Photo 4-3: SR-178 and Brown Road Intersection



Photo 4-3.1: Commercial and Industrial Development on Brown Road



Photo 4-3.2: Residential Development on Brown Road



Additionally, the southwestern corner of the Project site abutting the Chevron gas station and the intersection of SR-178 and Brown Road consists of a graded and undeveloped area used by the public and customers of the Chevron gas station for flow-over parking. (Photo 4-5 and 4-5.1)

Photo 4-5: Graded, Undeveloped Public Parking Area



Photo 4-5.1: Graded, Undeveloped Public Parking Area Used by Public



- **Northern Perimeter:** The Project site is bounded by the RB Inyokern Solar Project (RB Solar) along the northern perimeter. RB Solar is a single axis tracking photovoltaic facility consisting of approximately 98,980 photovoltaic panels and auxiliary equipment and facilities located on a 166.5 acre site that is completely fenced (Photo 4-6 and 4-6.1).

Photo 4-6: RB Inyokern Solar Project



Photo 4-6.1: RB Inyokern Solar Project (Fence north of Project site)



Additionally, a 100-foot wide west-east access easement (of which a larger approximately 138-foot wide area running west and east of the Project Parcel has been degraded) located between RB Solar and the Project is partially unvegetated. These disturbed lands lie between the southern, fenced boundary of RB Solar and the northern perimeter of the Project site (Photo 4-6.2).

Photo 4-6.2: Degraded West to East Easement Area



- **Eastern Perimeter:** The Project site is bounded by 18.76 acres of undeveloped, vacant land along the eastern perimeter (APN: 084-010-42) (Photo 7-1 and 7-1.1). The abutting parcel is bounded by SR-178 along the southern perimeter and HWY 395 and a barbed wire fence owned by the Department of Public Works, Division of Highways, State of California along the eastern perimeter.

Photo 7-1: View of Project site from East to West at HWY 395 exit



Photo 7-1.1: View of Parcel Abutting Project Area from HWY 395



- **Proposed Utility Easement:** A 30' wide utility easement is proposed starting from the southeastern corner of the Project site, running south across SR-178, to West Graff Avenue and the east on West Graff Avenue to a proposed SCE Point of Interconnection (POI). The POI is proximate to US 395 and is proximate to a barbed wire fence owned by the Department of Public Works, Division of Highways, State of California along the eastern perimeter.

The proposed utility easement area is bounded on the north by SR-178, on the west by Nadine Street, and on the northeast and east by Moonwind Street. The easement area runs southeast and east along West Graff Avenue. Electric transmission lines are located along West Graff Avenue through the entire easement area. (Photo 8-1)

Photo 8-1: Proposed Utility Easement (W Graff Avenue)



4.4.2 Regulatory Setting

Regulation of biological resources on the Project site derives from the following statutes and guiding plans. Summaries of these statutes are provided in BAR Appendix B. The significance of impacts to biological resources for purposes of CEQA are determined in the context of the Public Resources Code Section 21000 et seq.

Federal

Federal Endangered Species Act (FESA): The FESA (16 U.S.C. §1531 et seq.) prohibits the take of listed threatened and endangered species and requires federal agencies to consult with USFWS or NMFS to ensure their actions do not jeopardize listed species or adversely modify critical habitat.

Migratory Bird Treaty Act (MBTA): The MBTA (16 U.S.C. §703 et seq.) prohibits the take, possession, import, export, transport, selling, purchase, barter, or offer for sale of migratory birds, their eggs, parts, and nests.

The Bald and Golden Eagle Protection Act: Prohibits take, possession, and commerce of bald and golden eagles, including their parts, nests, and eggs.

Federal Clean Water Act: Section 404 of the Clean Water Act (33 U.S.C. §1344) regulates the discharge of dredged or fill material into waters of the United States, including wetlands.

State

California Endangered Species Act (CESA): CESA (Fish and Game Code §2050 et seq.) prohibits the take of species listed as threatened or endangered. The California Department of Fish and Wildlife (CDFW) administers CESA.

California Fish and Game Code (CFGC): Various provisions of the CFGC protect fully protected species (§§3511, 4700, 5050, 5515), game species, nongame species, and regulate activities affecting nesting birds and native plants.

Porter-Cologne Water Quality Control Act: California Water Code §13000 et seq. regulates discharges to waters of the State through the Regional Water Quality Control Board (RWQCB) Section 401 certification process.

California Desert Native Plants Act (CDNPA): Protects native desert plants from unauthorized harvesting, and requires a permit from the County Agricultural Commissioner for the removal of listed species including silver cholla and beavertail cactus.

Local

Kern County General Plan

The Kern County General Plan Land Use, Open Space, and Conservation Element (adopted June 15, 2004, as amended) contains the following goals, policies, and implementation measures applicable to biological resources.

Threatened and Endangered Species

- Policy 27: Threatened or endangered plant and wildlife species should be protected in accordance with State and federal laws.
- Policy 28: County should work closely with State and federal agencies to assure that discretionary projects avoid or minimize impacts to fish, wildlife, and botanical resources.
- Policy 29: The County will seek cooperative efforts with local, State, and federal agencies to protect listed threatened and endangered plant and wildlife species through the use of conservation plans and other methods promoting management and conservation of habitat lands.
- Policy 30: The County will promote public awareness of endangered species laws to help educate property owners and the development community of local, State, and federal programs concerning endangered species conservation issues.
- Policy 31: Under the provisions of the California Environmental Quality Act (CEQA), the County, as lead agency, will solicit comments from the California Department of Fish and Game [now the California Department of Fish and Wildlife] and the U.S. Fish and Wildlife Service when an environmental document (Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report) is prepared.
- Policy 32: Riparian areas will be managed in accordance with United States Army Corps of Engineers, and the California Department of Fish and Game rules and regulations to enhance the drainage, flood control, biological, recreational, and other beneficial uses while acknowledging existing land use patterns.
- Measure Q: Discretionary projects shall consider effects to biological resources as required by the California Environmental Quality Act.
- Measure R: Consult and consider the comments from responsible and trustee wildlife agencies when reviewing a discretionary project subject to the California Environmental Quality Act.
- Measure S: Pursue the development and implementation of conservation programs with State and federal wildlife agencies for property owners desiring streamlined endangered species mitigation programs.

General Plan General Provisions

Policy 2: Densities specified in the map provisions are maximums and may be reduced if it is determined that such reduction is warranted by conditions specifically applicable to the site, such as geological and flood hazards, shallow groundwater, steep slopes, significant wildlife habitat, or botanical communities.

General Plan Resource Element

Policy 20: Areas along rivers and streams will be conserved where feasible to enhance drainage, flood control, recreational, and other beneficial uses while acknowledging existing land use patterns.

Measure E: Designate the riparian community abutting rivers and streams with an appropriate resource use (e.g. Map Code 8.2 (Resource Reserve), Map Code 8.3 (Extensive Agriculture), or Map Code 8.5 (Resource Management)) or resource management designation where feasible to do so.

All policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Inyokern Specific Plan

The Inyokern Specific Plan includes land use and development standards applicable to the Project site, including a Service Industrial land use designation (Map Code 7.2) with a Flood Hazard overlay (Map Code 2.5). The Project is consistent with the Inyokern Specific Plan land use designation and applicable development standards. A copy of the Inyokern Specific Plan is available from the Kern County Planning and Natural Resources Department, 2700 “M” Street, Suite 100, Bakersfield, CA 93301, (661) 862-8600. All policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

Habitat Conservation Plans and Regional Plans

Habitat Conservation Plans, Natural Community Conservation Plans, or Recovery Plans: The Project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other regional biological resource conservation plan (BAR Section 5.6). The Project does not overlap with any federally designated critical habitat, and there is no identified critical habitat within 10 miles of the BSA. Although the Project is within the planning areas of the draft West Mojave Plan and the Desert Renewable Energy Conservation Plan (DRECP). The

DRECP was finalized in 2016, and this first Phase of the DRECP concerns only BLM-managed lands within the planning area. As such, DRECP requirements do not apply to the Project.

4.4.3 Existing Conditions and Field Surveys

As discussed in the BAR, the following sources were reviewed to obtain available information on sensitive biological resources in the Project vicinity:

- CDFW's California Natural Diversity Database (CNDDDB; CDFW 2025a; CDFW 2025b)
- CDFW's Biogeographic Information and Observation System (BIOS; CDFW 2025c)
- CDFW's California Wildlife Habitat Relationships (CWHR) System (Mayer and Laudenslayer 1988)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2025)
- Calflora (Calflora 2025)
- U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) system (USFWS 2025a)
- USFWS Critical Habitat Mapper (USFWS 2025b)
- USFWS National Wetlands Inventory (NWI; USFWS 2025c)
- United States Geological Survey (USGS) National Hydrography Dataset (NHD; USGS 2025)
- Federal Emergency Management Agency (FEMA) flood zone maps (FEMA 2025)
- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2025a)
- NRCS Lists of Hydric Soils (NRCS 2025b)
- eBird Explore (eBird 2025)
- VertNet (VertNet 2025)
- Current and historical aerial imagery from Google Earth (Google LLC 2025)

All State and federal data sources listed above focused on the California USGS 7.5-minute quadrangle Inyokern in which the Project is located, and the surrounding eight quadrangles: Ridgecrest North, Ridgecrest South, White Hills, Inyokern SE, Owens Peak, Pearsonville, Ninemile Canyon, and Freeman Junction.

Biological surveys were conducted within the BSA using methods described in the BAR. Survey efforts included reconnaissance-level field surveys conducted in August and November 2025, as well as protocol-level floristic surveys conducted in 2024 (BAR Sections 2.4, 2.5, and 2.6).

Survey methods included pedestrian transects to achieve full coverage of accessible areas within the BSA, visual surveys of inaccessible areas, documentation of vegetation communities and wildlife use, and evaluation of habitat suitability for special-status species (BAR Sections 2.4 and 2.5). Survey locations and coverage are depicted in Figure 2-1 of the BAR.

Detailed descriptions of survey dates, methods, and personnel qualifications, along with survey results, species observations, and supporting documentation, are provided in the BAR (Sections 2.0 through 2.6 and Appendices A through D).

The BAR was prepared by QK Inc. Primary authors include Eric Madueno, Senior Associate Environmental Scientist, and Karissa Denney, Senior Environmental Scientist. Field reconnaissance surveys were conducted by Karissa Denney, Eric Madueno, Dylan Burkey, and Kelli Baldwin. Technical review was performed by Dave Dayton, Principal Environmental Scientist. Full biologist qualifications are provided in the BAR (Appendix D.1).

Special-Status Species and Sensitive Biological Resources

Special-Status Species — Viability Threats Analysis: Twenty-nine special-status species were identified in the literature and database review that are known or have the potential to occur within the surrounding nine-quadrangles centered on the Project site (BAR Section 5.1; BAR Table 5-1 Special-Status Species Evaluation Table in Appendix A). Fourteen of the twenty-nine special-status species were identified as potentially occurring on the Project site and potentially being affected by the Project. The viability of those species was not deemed to be threatened by the Project (BAR Table 5-1).

Special-Status Plant Species: Of the thirteen special-status plant species identified in BAR Table 5-1, three species have the potential to occur on the Project site: Barstow woolly sunflower (*Eriophyllum mohavense*), Charlotte's phacelia (*Phacelia nashiana*) and Latimer's woodland gila (*Saltugilia latimeri*).

- **Barstow woolly sunflower (*Eriophyllum mohavense*):** This species was not observed during the protocol-level floristic surveys or the reconnaissance surveys conducted within the optimal blooming period for this species (March and May). The BSA is within the known range of the species, and a suitable habitat consisting of desert scrub and alkali sink scrub is present throughout the BSA. There is one CNDDDB occurrence within 10 miles of the BSA. This occurrence (EONDX 111389) is from 2018 and is approximately nine miles southeast of the BSA.
- **Charlotte's phacelia (*Phacelia nashiana*):** This species was not observed during the protocol-level floristic surveys or the reconnaissance surveys conducted within the optimal blooming period for this species (March to June). The BSA is within the known range of the

species, and a suitable habitat consisting of desert scrub is present throughout the BSA. There are 14 CNDDDB occurrences of this species within 10 miles of the BSA. The closest occurrence (EONDX 18227) is approximately 5.0 miles northwest of the BSA.

- **Latimer's woodland gila (*Saltugilia latimeri*):** This species was not observed during the protocol-level floristic surveys or the reconnaissance surveys conducted within the optimal blooming period for this species (March to June). The BSA is within the known range of the species. There are two CNDDDB occurrences within 10 miles of the BSA. The closest occurrence (EONDX 60329) is approximately 5.0 miles northwest of the BSA. Suitable desert scrub habitat is present within the BSA, and there is a low potential for this species to occur. Pre-construction surveys would be conducted under MM 4.4-1 to confirm presence or absence prior to ground disturbance.

The Project Site does not provide suitable habitat to support Muir's tarplant, Mojave tarplant, rose-flowered larkspur, Gilman's goldenbush, Hall's daisy, pale-yellow layia, Owen's Peak lomatium, sweet-smelling monardella, beautiful threadplant, or Nine Mile Canyon phacelia (BAR Appendix A). Protocol-level floristic surveys did not document these species within the Project site (BAR Sections 2.5 and 5.1.1).

Other Protected Plant Species: Silver cholla (*Cylindropuntia echinocarpa*) and beavertail cactus (*Opuntia basilaris*), are plant species protected under the California Desert Native Plants Act (CDNPA) and have potential to be present on the BSA. Five (5) silver cholla individuals were observed on the eastern portion of the Project site (BAR Figure 5-1). Beavertail cactus is not listed on any State or federal lists as threatened or endangered. The removal of individual silver cholla or beavertail cacti would require a California Desert Native Harvest Permit issued by the Kern County Agricultural Commissioner.

Special-Status Animal Species: The literature and database review identified sixteen (16) special-status animal species known or with the potential to occur in the vicinity of the Project (see BAR Appendix A). Five (5) of the sixteen special-status species were determined to be absent from the BSA due to lack of suitable habitat or the BSA being outside of the species range. Eleven (11) of the sixteen special-status species have the potential to occur on-site (see (BAR Sections 5.1.2 and 5.1.3); BAR Table 5-1 are discussed below:

- **Crotch's Bumble Bee (*Bombus crotchii*) - Status: State Candidate Endangered:** This species was not observed during the reconnaissance surveys, but the BSA is within the known range of the species, and suitable nesting habitat (small mammal burrows), and food plants (i.e., *Salvia* and *Chaenactis*) were present on the BSA. There are no CNDDDB occurrences within 10 miles of the BSA. There is a low potential for this species to occur within the BSA as a resident or as a transient forager.
- **Desert Tortoise (*Gopherus agassizii*) - Status: Federally Threatened, State Endangered:** The BSA is within the known range of this species, and suitable habitat is

present on the Project site. There are nine CNDDDB occurrences within 10 miles of the BSA. The closest occurrence (EONDX 114841) is approximately 3.5 miles west of the BSA. This occurrence is from 2019 and is presumed extant. No desert tortoises or their sign (i.e., burrows, scat, tracks) were present on the BSA during the reconnaissance surveys or protocol-level floristic surveys. Based on the lack of tortoises and their sign on the BSA and surrounding area, it is unlikely that desert tortoises are present on the BSA. Additionally, the BSA is surrounded by development, and there is a low likelihood of wild tortoises entering the Project site from adjacent areas, either as transients or to establish residency.

- **Golden Eagle (*Aquila chrysaetos*) - Status: State Fully Protected:** This species was not observed during the reconnaissance surveys, and suitable nesting habitat is not present. This species may be a transient forager as the BSA is within the known range of the species, and foraging habitat is present. There are three CNDDDB occurrences within 10 miles of the BSA. The closest occurrence (EONDX 88145) is approximately 6.0 miles northwest of the BSA. This occurrence is from 2012 and is presumed extant. There is a potential for this species to occur within the BSA as a transient forager.
- **Swainson's Hawk (*Buteo swainsoni*) - Status: State Threatened:** Although Swainson's hawk has not been reported to the CNDDDB, one was observed flying over the site to the north in April 2015 (Circle Mountain Biological Consultants, 2015). With the general loss of farming and lack of trees in the area, there is a low potential Swainson's hawk would be present as a transient forager, but it is unlikely to inhabit the site.
- **Western Burrowing Owl (*Athene cunicularia* ssp. *Hypugaea*) - Status: State Candidate Endangered, Species of Special Concern:** This species was not observed in the BSA during the reconnaissance survey, but the BSA is within the known range of the species, and both suitable foraging and nesting habitat are present. There are seven CNDDDB occurrences within 10 miles of the BSA. The closest occurrence (EONDX 114375) is approximately four miles west of the BSA. This occurrence is from 2017 and is presumed extant. Two nesting pairs of burrowing owls were identified approximately 1,000 feet northeast of the proposed Project during a survey conducted in April 2023 for the RB Inyokern Solar Project (Circle Mountain Biological Consultants, 2023).
- **Prairie Falcon (*Falco mexicanus*) - Status: State Watch List:** This species was not observed during the reconnaissance survey, but the BSA is within the known range of the species. The BSA contains suitable foraging habitat and some low-quality nesting habitat in power pole structures. There are four CNDDDB occurrences within 10 miles of the BSA. The nearest occurrence (EONDX 26078) reported in 1977 is approximately 3.5 miles west of the BSA and is presumed extant. There is a potential for this species to occur in the BSA as a transient forager.
- **Loggerhead Shrike (*Lanius ludovicianus*) - Status: Species of Special Concern:** This species was not observed during reconnaissance surveys, but the BSA is within the known range of the species. Both suitable nesting and foraging habitats are present. There are no CNDDDB occurrences within 10 miles of the BSA.

- **Le Conte's Thrasher (*Toxostoma lecontei*) - Status: Species of Special Concern:** This species was not observed during the reconnaissance survey, but the BSA is within the known range of the species. Both suitable nesting and foraging habitats are present. There are four CNDDDB occurrences within 10 miles of the BSA. There is one occurrence (EONDX 24544) that overlaps with the BSA. This occurrence is from 1946 and is presumed extant. This species may occur either as an inhabitant or as a transient forager.

[Note that as of April 2026, Le Conte's Thrasher is considered a Candidate Species for protection under the California Endangered Species Act (CESA) due to rapid population declines and significant habitat loss. With a global population estimated at under 71,000, this desert songbird has lost over half its population in the past 50 years, largely driven by development in Southern California. The BSA, which was prepared prior to the California Fish and Game Commission's revision of status, designated Le Conte's Thrasher as a "Species of Special Concern."]

- **American Badger (*Taxidea taxus*) - Status: Species of Special Concern:** There are three CNDDDB occurrences within 10 miles of the BSA. The closest occurrence (EONDX 57415) is three miles southwest of the BSA. This occurrence is from 1970 and is presumed extant. Suitable denning and foraging habitats are present within the BSA. A prey abundance (e.g., rodents) is present that can sustain a foraging individual. This species is highly mobile and could be present at any time.
- **Desert Kit Fox (*Vulpes macrotis arsipus*) - Status: CFGC Protected:** One potential desert kit fox den was identified on the BSA (Figure 4-5) during the surveys. Potential kit fox scat was also present at the den entrance. Known desert kit fox dens occur near the solar facility north of the Project site. This species is relatively wide-ranging and may be present within the BSA at any time, either as a resident or a transient forager.
- **Mohave Ground Squirrel (*Xerospermophilus mohavensis*) - Status: State Threatened:** There are 42 CNDDDB occurrences within 10 miles of the BSA. The closest occurrence (EONDX 110847) is approximately 1,263 feet north of the BSA. This occurrence is from 2015 and is presumed extant. The BSA is within the known range of this species, and suitable habitat is present. No Mohave ground squirrels were observed during the reconnaissance survey, and no winter fat or spiny hopsage (two of their preferred food plants) were identified on the BSA. However, the Project site contains numerous small mammal burrows (Figure 4-4), many of which were of suitable size for Mohave ground squirrels. Although the Project contains low quality habitat to support this species, there is a low potential for Mohave ground squirrel to be present on the Project site as a transient or an established resident.

Other Protected Wildlife Species – Nesting Birds: Habitat within the BSA supports nesting native birds that are protected by the federal MBTA and the CFGC. The reconnaissance surveys were conducted outside the nesting bird season (February 1 to September 15). Although the surveys included conducting searches for inactive bird nests, none were found. Bird species may construct nests within the BSA before or even after construction activities begin. Various species of birds will construct nests in a variety of substrates and structures, and nests may become

established in trees or shrubs, in manmade structures, and directly on the ground. The BSA supports several types of habitats, substrates, and structures suitable for nesting birds, and there is a high potential that birds will nest within the BSA during the nesting season.

Sensitive Natural Communities: The database and literature review did not identify any sensitive plant communities known to occur or with the potential to occur within the vicinity of the BSA, and none were present during the reconnaissance surveys. The Project does not overlap with any federally designated critical habitat, and there is no identified critical habitat within 10 miles of the BSA.

Jurisdictional Aquatic Resources: Based on the NHD, NWI, and on-site ground confirmation, there are no identified aquatic resources within the Project site. However, one ephemeral water feature is present within the BSA along the edge of the roadway. (Figure 4-1). The proposed Project activities will not impact the existing water feature and, therefore, will not require any additional permitting or consultation. If impacts to the water feature are anticipated, a formal jurisdictional delineation for submittal to State and federal agencies should be conducted, and additional permitting may be required.

Wildlife Movement: Wildlife movement corridors, also referred to as dispersal corridors or landscape linkages, are generally defined as linear features along which animals can travel from one habitat or resource area to another. The Project is situated within the Pacific Flyway, which is a significant avian migration route that covers a wide swath of land along the western Americas from Patagonia to Alaska.

Table 4.4-A CEC SPPE Appendix B (g)(13) Compliance Cross-Reference

Ref.	Appendix B Requirement	Section / Table	Status
Setting Requirements — Appendix B (g)(13)(A)–(D)			
(g)(13)(A)	Regional overview of terrestrial and aquatic biological resources within 10 miles; CNDDDB quadrangle list and access date	§4.4.1; §4.4.7	✓ Addressed
(g)(13)(A)	Sensitive biological resources map (1:6,000 confidential; 1:350,000 public); HCP/NCCP boundaries	§4.4.1; BAR Fig. 5-1	✓ Addressed
(g)(13)(B)	List of species and habitats observed and with potential to occur within 1 mile of project site / 1,000 ft of linear facility corridors	§4.4.3.1; BAR Table 5-1	✓ Addressed

(g)(13)(C)	Discussion of vegetation communities, nesting/denning sites, migration corridors, nitrogen deposition, jurisdictional waters	§4.4.3; §4.4.4; §4.4.7	✓ Addressed
(g)(13)(D)	Description and results of all field studies and specialized surveys; biologist qualifications; CNDDDB forms	§4.4.3; BAR §§2.4–2.6	✓ Addressed
Impact, Mitigation & Monitoring Requirements — Appendix B (g)(13)(E)–(H)			
(g)(13)(E)	Impacts discussion — direct, indirect, and cumulative impacts from site prep, construction, operation, maintenance, closure, decommissioning; nitrogen deposition	§4.4.4; §4.4.6	✓ Addressed
(g)(13)(F)	All feasible mitigation measures; off-site habitat mitigation; educational programs for employees	§4.4.4; §4.4.5	✓ Addressed
(g)(13)(G)	Compliance and monitoring programs to verify effectiveness of avoidance and mitigation measures	§4.4.6; BAR §6.0	✓ Addressed
(g)(13)(H)	Preliminary correspondence with USFWS, NMFS, USACE, CDFW, and RWQCB	§4.4.7; BAR App. B	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(13). All criteria addressed in this chapter; full technical disclosure in Biological Analysis Report (BAR) (filed as Appendix D.1 to this Application).

4.4.4 Impacts and Mitigation Measures

Methodology

The methodology for evaluating biological resource impacts involved three steps: (1) evaluation of existing conditions within the BSA through database review and field surveys; (2) determination of whether Project activities could affect sensitive biological resources and, if so, the nature and magnitude of those effects; and (3) determination of whether avoidance, minimization, and mitigation measures would reduce impacts to a less-than-significant level. The analysis was

conducted in accordance with CEQA Guidelines and applicable state and federal regulatory standards. Supporting technical analysis is provided in the BAR (Appendix D.1).

Thresholds of Significance

In accordance with the Kern County CEQA Implementation Document and CEQA Guidelines Appendix G, a significant impact to biological resources would occur if the Project would:

- (a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- (b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- (c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- (d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- (e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- (f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Project Impacts

Impact 4.4-1: Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

The proposed Project has the potential to impact special-status plants and wildlife through the loss or modification of habitat, as well as direct and indirect impacts on species (for example, mortality of individuals, interference with reproductive success, introduction of invasive species, and habitat degradation). The following species may be impacted by the Project:

- ***Special-Status Plant Species:*** Barstow woolly sunflower (*Eriophyllum mohavense*), Charlotte's phacelia (*Phacelia nashiana*) and Latimer's woodland gila (*Saltugilia latimeri*).
- ***Other Protected Plant Species:*** Silver cholla (*Cylindropuntia echinocarpa*) and beavertail cactus (*Opuntia basilaris*), are plant species protected under the California Desert Native Plants Act (CDNPA) and have potential to be present on the BSA.

- ***Special-Status Animal Species:*** Crotch's Bumble Bee (*Bombus crotchii*) - Status: State Candidate Endangered; Desert Tortoise (*Gopherus agassizii*) - Status: Federally Threatened, State Endangered; Golden Eagle (*Aquila chrysaetos*) - Status: State Fully Protected; Swainson's Hawk (*Buteo swainsoni*) - Status: State Threatened; Western Burrowing Owl (*Athene cunicularia ssp. Hypugaea*) - Status: State Candidate Endangered, Species of Special Concern; Prairie Falcon (*Falco mexicanus*) - Status: State Watch List; Loggerhead Shrike (*Lanius ludovicianus*) - Status: Candidate Species; Le Conte's Thrasher (*Toxostoma lecontei*) - Status: Candidate Species (See Note 1); American Badger (*Taxidea taxus*) - Status: Species of Special Concern; Desert Kit Fox (*Vulpes macrotis arsipus*) - Status: CFGC Protected; and Mohave Ground Squirrel (*Xerospermophilus mohavensis*) - Status: State Threatened.

[Note 1: As of April 2026, Le Conte's Thrasher is considered a Candidate Species for protection under the California Endangered Species Act (CESA) due to rapid population declines and significant habitat loss. With a global population estimated at under 71,000, this desert songbird has lost over half its population in the past 50 years, largely driven by development in Southern California. The BSA, which was prepared prior to the California Fish and Game Commission's revision of status, designated Le Conte's Thrasher as a "Species of Special Concern."]

- ***Other Protected Wildlife Species – Nesting Birds:*** Habitat within the BSA supports nesting native birds that are protected by the federal MBTA and the CFGC. The BSA supports several types of habitats, substrates, and structures suitable for nesting birds, and there is a high potential that birds will nest within the BSA during the nesting season.

The proposed Project's potential impacts to special status plants and wildlife from construction, operation and maintenance, and decommissioning, are discussed below.

Construction

Construction activities would result in permanent removal of desert scrub habitat within the Project footprint and temporary disturbance to adjacent areas (BAR Section 6.0). Ground-disturbing activities could result in direct or indirect impacts to special-status wildlife species through habitat disturbance or displacement if avoidance measures are not implemented (BAR Sections 6.1.1 and 6.1.2). Pre-construction surveys, biological monitoring, and worker awareness training would reduce the potential for direct take of individual animals and avoid impacts to active dens and burrows.

Construction activities conducted during the avian nesting season could impact nesting birds protected under applicable regulations if active nests are disturbed (BAR Section 6.1.2). Pre-construction nesting bird surveys and establishment of avoidance buffers around active nests would reduce this impact to a less-than-significant level.

Operation and Maintenance

Operational impacts would consist primarily of long-term conversion of undeveloped habitat to developed land uses. Routine maintenance activities (e.g., generator testing, equipment servicing, facility upkeep) would occur within the previously disturbed and developed Project footprint and would not create new impacts to biological resources beyond those addressed under construction above. The operational phase of the Project is not expected to substantially impact wildlife movement, jurisdictional aquatic resources, or sensitive natural communities (BAR Sections 6.2 through 6.4). The operational phase of the Project is not expected to result in impacts relating to cooling water discharge to aquatic resources, thermal plumes affecting sensitive habitat, or other aquatic biological effects (BAR Sections 5.3 and 6.3).

Decommissioning

In the event of Project closure or decommissioning, activities would be subject to the same biological resource protections required during construction, including pre-construction surveys and biological monitoring. No additional impacts to biological resources are anticipated from maintenance, closure, or decommissioning beyond those identified above (BAR Section 6.0).

Mitigation Measures: MM 4.4-1 through MM 4.4-11 would be required.

Level of Significance: *Less than significant.*

Impact 4.4-2: Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.

The topography of the BSA is generally flat, although the terrain is slightly more variable where anthropogenic disturbances have occurred (i.e., OHV roads) or have influenced drainage patterns. The topography gently slopes from south to north, with an elevation that ranges between 2,435 and 2,416 feet above mean sea level (AMSL).

No jurisdictional waters or wetlands were identified within the Project site. One ephemeral drainage feature was observed near the electrical interconnection route; however, the BAR concluded that the Project would avoid this feature and would not impact jurisdictional aquatic resources (BAR Sections 4.1.5 and 5.3; Figures 4-1 and 4-2). No riparian habitat is present within the BSA.

The BAR determined that no sensitive natural communities are present within the Project footprint (BAR Section 5.2). The Project site supports Desert Scrub and Alkali Desert Scrub, neither of which qualify as sensitive natural communities under CDFW or USFWS definitions.

Mitigation Measures: No mitigation measures are required.

Level of Significance: *Less than significant.*

Impact 4.4-3: Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

No jurisdictional waters or wetlands were identified within the Project site (BAR Sections 4.1.5 and 5.3; Figures 4-1 and 4-2). One ephemeral drainage feature was observed near the electrical interconnection route; however, the Project would avoid this feature and would not impact jurisdictional aquatic resources.

Based on the NHD, NWI, and on-site ground confirmation, there are no identified aquatic resources within the Project site. The proposed Project activities will not impact the existing water feature and, therefore, will not require any additional permitting or consultation. If impacts to the water feature are anticipated, a formal jurisdictional delineation for submittal to State and federal agencies should be conducted, and additional permitting may be required.

Because no jurisdictional features would be affected, no Section 404 permit, RWQCB Section 401 certification, or CDFW Section 1602 Streambed Alteration Agreement would be required for construction, operations, or decommissioning.

Mitigation Measures: No mitigation measures are required.

Level of Significance: *Less than significant.*

Impact 4.4-4: Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

There are no established migratory fish or native resident or migratory wildlife corridor on or near the Project Site other than the Pacific Flyway which is a significant avian migration route that covers a wide swath of land along the western Americas from Patagonia to Alaska. However, the Project is low-lying (30 feet maximum design envelope; actual building heights range from 16 to 22 feet per the Conceptual Site Plan) and would not obstruct avian migratory movements within the flyway. Construction activities would be confined to the Project Site and proposed transmission line corridors and would not sever or permanently block any identified wildlife movement corridor.

Due to the distance between the Project Site and the closest preserves that may serve as wildlife and/or plant nursery sites and native and migratory wildlife sites and corridors, the impact of the

Project Site to native or migratory wildlife movement would be unlikely. The closest preserve is the Canebrake Ecological Reserve, approximately 30 miles west of the Project Site, an approximately 7,200-acre property which include valley foothill riparian, valley foothill hardwood-conifer/blue oak-digger pine, sagebrush, Joshua tree, riverine, lacustrine, fresh emergent wetland, wet meadow, pasture, and cropland habitats. Hundreds of bird species occur at the Canebrake Ecological Reserve, as well as numerous mammal, reptile, and butterfly species, including fish species such as western suckers, hardhead, and Sacramento squawfish. The Kern National Wildlife Refuge, a 11,249-acre refuge located approximately 155 miles to the west of the Project Site, provides essential breeding/migratory habitat for birds and upland habitats for mammals like coyotes and ground squirrels. Finally, the Lokern Ecological Reserve, which is located 135 miles from the Project Site, is an approximately 3,100 acre state reserve of marsh, valley sink scrub, and valley saltbush scrub habitat.

Operation

The operational Project, consisting of data center buildings and associated low-profile infrastructure, would not substantially interfere with wildlife movement. The Project would not have any impacts on wildlife movement corridors.

Mitigation Measures: No mitigation measures are required.

Level of Significance: *Less than significant.*

Impact 4.4-5: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The Project is consistent with the Kern County General Plan Land Use, Open Space, and Conservation Element (adopted June 15, 2004, as amended) which is more particularly described in the Regulatory Settings part of this section.

The proposed Project would implement Mitigation Measures MM 4.4-1 through MM 4.4-11 to reduce potential proposed Project-related impacts to sensitive biological resources including special status species and their habitats. Implementation of these mitigation measures would reduce the potential impacts to sensitive plant species from construction, operation and maintenance, and decommissioning, to *less than significant*.

Mitigation Measures: Implementation of Mitigation Measures MM 4.4-1 through MM 4.4-11 would be required.

Level of Significance: *Less than significant.*

Impact 4.4-6: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The Project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other regional biological resource conservation plan (BAR Section 5.6). The

Project does not overlap with any federally designated critical habitat or local, regional or state habitat conservation planning area. Although the Project is within the planning areas of the draft West Mojave Plan and the Desert Renewable Energy Conservation Plan (DRECP), the DRECP was finalized in 2016, and this first Phase of the DRECP concerns only BLM-managed lands. As such, DRECP requirements do not apply to the Project. With implementation of the mitigation measures identified in Section 4.4.5, the Project would be consistent with applicable local biological resource policies.

Mitigation Measures: No mitigation measures required.

Level of Significance after Mitigation: *Less than significant.*

Impact 4.4-7: Sensitive Species Habitat Impacts from Nitrogen Deposition

This impact evaluates whether nitrogen deposition from Project air emissions would result in a substantial adverse effect on sensitive species habitats, including Desert Scrub and the special-status species that depend on it, consistent with the requirements of Appendix B (g)(13)(E).

Construction

Construction activities would use Tier 4 diesel equipment with substantially lower NO_x emissions than operational generators. The Nitrogen Deposition Analysis (Appendix E.2) identifies that construction and decommissioning phases are temporary, with NO_x emissions significantly less than operational emissions. Operational phase modeling therefore represents the worst-case scenario for nitrogen deposition impacts. No separate construction-phase nitrogen deposition modeling was required.

Operation

Nitrogen deposition modeling was performed using the AERMOD dispersion model (version 24142) by Yorke Engineering, LLC (Nitrogen Deposition Analysis, March 2026, Appendix E.2). The Project would operate 40 × 3-MW diesel generators for 50 hours per year, generating maximum annual NO_x emissions of 8,869.05 lb/yr and NH₃ emissions of 455.82 lb/yr for all generators combined. The CEC significance threshold is 5 kg/ha/yr (CEC 2007; Weiss 2006a).

The maximum predicted total nitrogen deposition rate is 1.76 kg/ha/yr at the northeastern property line (Nitrogen Deposition Analysis, Table 2-1; Figure 2-4). Background nitrogen deposition at the project site is less than 3 kg/ha/yr (Tonnesen 2007). The combined project-related and background nitrogen deposition rate is below the 5 kg/ha/yr CEC threshold at all offsite sensitive habitat locations. Sensitive species potentially affected — Le Conte's Thrasher, Mohave Ground Squirrel, and Desert Tortoise — would be exposed to a maximum total deposition rate of 1.76 kg/ha/yr, well below the 5 kg/ha/yr significance threshold. Zero acres of sensitive habitat would be negatively impacted.

Mitigation Measures: No mitigation measures are required.

Level of Significance: *Less than significant.*

4.4.5 Mitigation Measures

The BAR identifies avoidance and minimization measures designed to reduce potential impacts to biological resources to less-than-significant levels (BAR Section 6.0). As more particularly described in the BAR, these measures include:

4.4.5.1 Special-Status Plant and Other Protected Plant Species.

Implementation of the avoidance and minimization measures listed below would reduce Project impacts to special-status plant species to a level that would be less than significant. The following measures are recommended to avoid and minimize impacts to the Barstow woolly sunflower and silver cholla.

MM 4.4-1 Pre-Construction Special-Status Plant Surveys. Prior to the issuance of a grading permit or ground disturbance, a qualified biologist knowledgeable on the identification of plant species should conduct a pre-construction survey to determine the exact locations of silver cholla, and beavertail cactus, and determine presence or absence of Barstow woolly sunflower, Charlotte's phacelia, and Latimer's woodland gilia onsite. If special-status plants are not identified during the survey(s), no further action is required. Locations of any special-status plant species or regulated cacti species observed should be mapped and described in a clearance survey report that would be submitted to Kern County. Silver cholla and beavertail cactus that cannot feasibly be avoided during construction would require a California Desert Native Harvest Permit issued by the Kern County Agricultural Commissioner.

MM 4.4-2 Avoidance of Listed Special-Status Plants. No incidental take or relocation of any plant listed under the Federal Endangered Species Act, the California Endangered Species Act, or the California Native Plant Protection Act may occur unless the incidental take is authorized by the United States Fish and Wildlife Service and/or the California Department of Fish and Wildlife in a permit or other authorization. If focused plant surveys detect the presence of any listed plant, the plant populations shall be buffered from disturbance activities by implementing applicable impact avoidance protocols established by the United States Fish and Wildlife Service and/or the California Department of Fish and Wildlife, unless incidental take authority is obtained. Projects covered under the incidental take authority shall conduct

activities in accordance with the take authorization. The California Department of Fish and Wildlife may be contacted to determine the appropriate buffer required to prevent incidental take of a listed plant if avoidance protocols have not been established for the species. The qualified biologist shall confirm that all applicable listed plant buffers have been implemented prior to the commencement of any disturbance activity.

4.4.5.2 ***Special-Status Wildlife and Other Protected Animal Species.***

Implementation of the avoidance and minimization listed below would reduce Project impacts to special-status wildlife species to levels that would be less than significant. The following measures are recommended to avoid and minimize impacts to Crotch's bumble bee, western burrowing owl, Mohave ground squirrel, desert tortoise, loggerhead shrike, American badger, LeConte's thrasher, desert kit fox, and migratory and nesting birds.

MM 4.4-3 Pre-Construction Surveys for Crotch's Bumble Bee. Prior to the issuance of grading permits or ground disturbance, a qualified biologist would conduct pre-construction clearance surveys for special-status species. Preconstruction surveys would be conducted within 30 days before the beginning of ground disturbance or construction activities. The surveys would identify any potential evidence of species occupancy (including colony nests). If feasible, overwintering queen surveys and spring surveys should be completed to minimize the potential of directly impacting this species. If active nests or overwintering sites are discovered within the project footprint, they would be avoided by a minimum 100-foot radius. A biological monitor would be present during the proposed work if work occurs near active nest locations or overwintering sites. If any listed special-status species are detected within the project limits, and biologists determine there is potential for take, then USFWS and/or CDFW would be consulted (as applicable), and a take authorization could be obtained.

MM 4.4-4 Pre-Construction Surveys for Burrowing Owl, Desert Tortoise, American Badger, and Desert Kit Fox. Within 14 days prior to the start of Project construction or ground disturbance activities, a pre-construction clearance survey should be conducted by a qualified biologist knowledgeable in the identification of these species. The timing of the pre-construction surveys may need to be phased to ensure appropriate timing before project activities begin.

If greater than 14 days elapse between the survey and the start of activities, an additional survey may be required. The pre-activity survey shall include walking transects to identify the presence of burrowing owls and their

burrows, American badgers and their dens, and desert kit foxes and their dens. The pre-activity survey shall be walked using transects spaced at intervals of not greater than 30 feet, which will provide 100 percent coverage of the Project site and a 250-foot buffer for desert tortoise, American badger, desert kit fox, and a 500-foot buffer for burrowing owl. Some areas of the buffer may not be accessible, so transects within the buffer will only be walked where feasible. If no evidence of these special-status species is detected, no further action is required. If no desert tortoises or their burrows are located, no further action is warranted. If the species is present on-site, the Project proponent may pursue an Incidental Take Permit through the CDFW, pursuant to Fish and Game Code section 2081, and through the USFWS, pursuant to the Endangered Species Act Section 10(a)(1)(B).

- MM 4.4-5 Avoidance of Burrowing Owl Burrows and Burrowing Owl ITP.** If burrows that could support this species are discovered during the pre-construction clearance survey conducted under Measure MM 4.4-4, the avoidance buffers outlined below should be established, and burrow monitoring will be conducted in accordance with the California Department of Fish and Game (CDFG) *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). No work would occur within these buffers. If occupied burrowing owl burrows cannot be avoided by the appropriate buffer below, an ITP issued by the CDFW under the California Endangered Species Act (CESA) to authorize "take" that is incidental to an otherwise lawful activity, may be required before any work within the buffer.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1 -Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16 – Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16- Mar 31	50 m	100 m	500 m

*Meters (m)

- MM 4.4-6 Avoidance of American Badger and Desert Kit Fox Dens.** If dens or burrows that could support any of these species are discovered during the pre-construction clearance survey conducted under Measure MM 4.4-4, the avoidance buffers outlined below should be established, and den or burrow monitoring will be conducted in accordance with the USFWS *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011b). No work would occur within these buffers unless the biologist approves and monitors the activity.

American Badger and Desert Kit Fox Natal/Pupping Season

American Badger

Breeding Season: Late Summer – Early Fall

Pregnancy (Delayed Implantation): December through February

Pups are Born: March through April

Pup Dispersal: June through August

Desert Kit Fox

Mate Pairing: October through November

Mating: December through January (possibly into February)

Pups are Born: February or March

Pup Dispersal: July

American Badger and Desert Kit Fox

Potential or Atypical den: 50 feet

Known den: 100 feet

Natal or pupping den: 200 feet

Burrows and dens may be excavated by a qualified biologist once it is determined that the burrow or den is not occupied. To determine occupation, each den should be monitored for three consecutive days/nights using tracking medium and/or remote cameras fitted with a motion detector and/or infrared triggering system. In addition, prior to excavation of burrows or dens, one-way doors may be installed (only in the non-breeding season), and the burrows or dens will be scoped with optic cameras to ensure no wildlife is present. All excavations would be accomplished by hand or backhoe under the direct supervision of a qualified biologist.

MM 4.4-7 Mohave Ground Squirrel ITP. Mohave ground squirrel is assumed to be present on Project site. Therefore, the Project must comply with the measures detailed below.

- (a) A California Department of Fish and Wildlife 2081 incidental take permit shall be required prior to the issuance of grading permits or ground disturbance.
- (b) The Project proponent or developer will provide compensatory habitat-

based mitigation for loss of suitable habitat at a ratio determined by the California Department of Fish and Wildlife prior to issuance of a grading permit from the county. Compensatory mitigation for the loss of habitat will be provided through compliance with Senate Bill 34 and either the advance purchase of mitigation properties acceptable to the California Department of Fish and Wildlife or the contribution of in lieu fees to the California Department of Fish and Wildlife.

MM 4.4-8 Avoidance and Minimization Measures for Desert Tortoise, Burrowing Owl, American Badger, Desert Kit Fox, and Mohave Ground Squirrel. The following avoidance and minimization measures should be implemented during construction of the Project to reduce the potential for impacts. These are modified from the *U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011), but they can be applied equally to protect all three species.

- (a) Project-related vehicles should observe a daytime speed limit of 20 mph throughout the site in all Project areas, except on County roads and State and federal highways.
- (b) All Project activities should occur during daylight hours, but if work must be conducted at night, then a nighttime construction speed limit of 10 mph should be established.
- (c) Off-road traffic outside of designated Project areas should be prohibited.
- (d) To prevent inadvertent entrapment of kit foxes or other animals during construction of the project, all excavated, steep-walled holes or trenches more than two feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps spaced at a minimum distance of 100 feet and constructed of earthen-fill or wooden planks should be installed.
- (e) Before holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the CDFW should be contacted before proceeding with the work.
- (f) In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape.
- (g) All construction pipes, culverts, or similar structures with a diameter of four inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes, American badgers, and burrowing owls before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the animal vacates the pipe of its own accord. If

necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity until the fox, badger, or burrowing owl has escaped.

- (h) All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or Project site.
- (i) No pets, such as dogs or cats, should be permitted on the Project site unless permitted in accordance with the Americans with Disabilities Act.
- (j) Project-related use of rodenticides and herbicides should be restricted.
- (k) A representative should be appointed by the Project proponent, who will be the contact source for any employee or contractor who might inadvertently kill or injure one of these species or who finds a dead, injured, or entrapped animal. The representative should be identified during the employee education program, and their name and telephone number should be provided to the CDFW.
- (l) Upon completion of the Project, all areas subject to temporary ground disturbances (including storage and staging areas, temporary roads, pipeline corridors, etc.) should be recontoured and revegetated to promote restoration of the area to pre-project conditions following a revegetation plan approved by the County. An area subject to "temporary" disturbance means any area that is disturbed during the Project, but after Project completion, will not be subject to further disturbance and has the potential to be revegetated.
- (m) Any Project personnel who are responsible for inadvertently killing or injuring one of these species should immediately report the incident to their representative. This representative should contact the CDFW immediately in the case of a dead, injured, or entrapped kit fox, American badger, or western burrowing owl.
- (n) New sightings of American badger or western burrowing owl shall be reported to the CNDDB.

MM 4.4-9 Pre-Construction Surveys for Nesting Birds. If Project construction activities must occur during the nesting season (February 1 to September 15), pre-construction nesting bird surveys for Swainson's hawk, golden eagle, prairie falcon, loggerhead shrike, Le Conte's thrasher and migratory birds should be conducted 14 days prior to the start of construction at the construction site plus a 250-foot buffer (avoidance buffer) for songbirds and a 500-foot buffer for raptors. The surveys should be phased with the construction of the Project. If no active nests are found, no further action is required. However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting

season, including when construction activities are in progress. If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 250 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. Full-time monitoring of an active nest may be needed when activities are occurring at the fringe of a buffer to determine whether activities are affecting nesting birds. Results of the monitoring may indicate a need to expand the size of avoidance buffer areas. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist should have the ability to stop construction if nesting adults show any sign of distress.

MM 4.4-10 Biological Monitoring. A qualified biologist should monitor all ground-disturbing and vegetation removal activities occurring during all construction activities. The qualified biologist should be present at all times during ground-disturbing activities (including drilling holes and trenching) within and adjacent to habitats with the potential to support special-status wildlife species, including Crotch's bumblebee, Mohave ground squirrel, desert tortoise, burrowing owl, American badger, desert kit fox, and nesting birds. If a special-status species is found within the construction area, all construction shall cease immediately, and the animal will be allowed to leave the area of its own accord or relocated by an authorized biologist to a suitable habitat outside of the Project area.

MM 4.4-11 Worker Environmental Awareness Training. Prior to the initiation of construction activities, all personnel should attend a Worker Environmental Awareness Training program developed by a qualified biologist. The program should include information on the life histories of special-status species wildlife species, including Crotch's bumblebee, Mohave ground squirrel, desert tortoise, burrowing owl, American badger, desert kit fox, and nesting birds with the potential to occur on the Project, their legal status, the course of action should these species be encountered on-site, and avoidance and minimization measures to protect these species. All attendees at WEATs should signify that they have received and understand the training material by signing an attendance sheet, which will be maintained on-site. All attendees will be provided with summary training materials that they can carry while on the job and can reference while working on the Project.

Significance After Mitigation. Implementation of the avoidance, minimization, and mitigation measures above will reduce impacts to special-status wildlife species to a *less*

than significant level.

4.4.6 Cumulative Setting, Impacts and Mitigation Measures

The cumulative analysis area for biological resources encompasses the western Mojave Desert portion of Kern County, consistent with the geographic range of sensitive species and habitats potentially affected by the Project. Past, present, and reasonably foreseeable future projects in this area include solar energy facilities, commercial and industrial development, transportation infrastructure, and residential development. See Appendix N.3 (Cumulative Projects and Cumulative Impacts Analysis) for the full list of past, present, and reasonably foreseeable projects considered in the cumulative biological resources analysis.

The Project site has been substantially disturbed by prior land uses and is surrounded by existing development, including the adjacent RB Inyokern Solar facility to the north, commercial uses to the south and west, and vacant land to the east. The removal of desert scrub habitat associated with Project construction would represent an incremental contribution to the cumulative loss of Mojave Desert habitat in the region. However, given the disturbed condition of the Project Site, the relatively small project footprint of approximately 50 acres and the absence of sensitive natural communities and jurisdictional aquatic resources within the Project footprint, the Project's incremental contribution to cumulative biological resource impacts would not be considerable.

In conclusion, when considered in combination with other development in the vicinity, the Project would not result in significant cumulative impacts to biological resources (BAR Section 6.0). Other projects in the area would be subject to the same CEQA review requirements and applicable regulatory standards. The Project's implementation of Mitigation Measures MM 4.4-1 through MM 4.4-11 would reduce the Project's contribution to cumulative impacts to a less-than-significant level. The Project is consistent with the goals and policies of the Kern County General Plan and Inyokern Specific Plan applicable to biological resource protection.

Compliance with biological mitigation measures and monitoring requirements would be implemented consistent with the recommendations provided in the BAR (BAR Section 6.0). Monitoring procedures and reporting requirements are described in the BAR. Implementation of the avoidance, minimization, and mitigation measures above is expected to reduce impacts to special-status wildlife species to a less-than-significant level.

Mitigation Measures: Implementation of Mitigation Measures MM 4.4-1 through MM 4.4-11 would be required.

Level of Significance: *Less than significant.*

4.4.7 CEC SPPE Appendix B — Additional Biological Resources Disclosure Requirements

This section provides the additional biological resources disclosure information required by CEC SPPE Appendix B, Section (g)(13). This information supplements the CEQA impact analysis provided in Sections 4.4.1 through 4.4.4 above. Appendix B, Section (g)(13), requires a regional overview of biological resources; a list of species with potential to occur; a discussion of biological resources at the project site; description of field studies; an impacts discussion; a mitigation discussion; a compliance and monitoring discussion; and copies of preliminary agency correspondence. Each of these requirements is addressed below.

Regional Overview and CNDDDB Records — Appendix B (g)(13)(A)

A regional overview and discussion of terrestrial and aquatic biological resources within ten (10) miles of the Project site is provided in the BAR (BAR Sections 3.0 and 4.0). The CNDDDB was accessed in 2025 (CDFW 2025a; CDFW 2025b). Records were searched for the USGS 7.5-minute quadrangle Inyokern and the surrounding eight quadrangles: Ridgecrest North, Ridgecrest South, White Hills, Inyokern SE, Owens Peak, Pearsonville, Ninemile Canyon, and Freeman Junction. Sensitive biological resource locations are shown on BAR Figure 5-1 (1:6,000 scale, provided under confidential cover) and at 1:350,000 scale for public review.

The Project site is not located within an adopted Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP). The Project does not overlap with any federally designated critical habitat, and there is no identified critical habitat within 10 miles of the BSA (BAR Section 5.6). GIS data (shapefile and geodatabase formats) for all mapped biological resources are provided as part of the BAR data submittal.

Species List, Habitat Discussion, Jurisdictional Features, and Nitrogen Deposition — Appendix B (g)(13)(B), (C), and (E)

A list of all special-status species observed and those with the potential to occur within one mile of the Project site and 1,000 feet from the outer edge of the electrical interconnection corridor is provided in BAR Table 5-1. The table identifies each species' status under state and federal law, the basis for potential occurrence, and the results of field surveys.

Vegetation community types identified within the BSA include Desert Scrub (~44.95 acres) and Alkali Desert Scrub (~8.38 acres), as described and mapped in BAR Section 4.2 and Figure 4-3. No sensitive natural communities are present within the Project footprint. An aerial map depicting modeled nitrogen deposition rates and a map of state and federal jurisdictional features are provided in the BAR (BAR Figures 4-1 and 4-2). No jurisdictional waters or wetlands were identified within the Project site. One ephemeral drainage feature near the electrical interconnection route would be avoided by the Project.

Nitrogen deposition modeling was performed by Yorke Engineering, LLC in accordance with Appendix B (g)(13)(C)(ii) (Nitrogen Deposition Analysis, March 2026, filed as Appendix E.2 to this Application). The AERMOD dispersion model (version 24142) was used to estimate total

nitrogen deposition from Project emissions. Meteorological data were obtained from Edwards Air Force Base (KEDW 723810) for years 2012, 2016, 2017, 2019, and 2020. Terrain data used NED GEOTIFF at 1/3-arcsecond (10-meter) resolution in the NAD83 coordinate system.

The analysis modeled NO_x and NH₃ emissions from 40 × 3-MW Caterpillar diesel-fired generators equipped with selective catalytic reduction (SCR), diesel exhaust fluid (DEF), and diesel particulate filters (DPFs) operating for 50 hours per year (testing). Annual emissions for all 40 generators totaled 8,869.05 lb/yr of NO_x (4.44 tons/yr) and 455.82 lb/yr of NH₃ (0.23 tons/yr). Deposition parameters were based on nitric acid as a conservative proxy for all nitrogen species (Diffusivity in Air: 0.1628 cm²/s; Cuticular Resistance: 130,000 s/cm). Full modeling parameters are provided in Appendix B of the Nitrogen Deposition Analysis.

The CEC significance threshold applied is 5 kg/ha/yr, consistent with previous CEC-licensed power plant studies (CEC 2007) and Weiss (2006a). Sensitive species potentially exposed within the six-mile receptor grid include Le Conte's Thrasher, Mohave Ground Squirrel, and Desert Tortoise.

Results: The maximum predicted total nitrogen deposition rate from Project operations is 1.76 kg/ha/yr (dry: 1.76 kg/ha/yr; wet: 0.0026 kg/ha/yr), occurring at UTM coordinates (426948.96, 3945618.70) on the northeastern property line (Nitrogen Deposition Analysis Table 2-1; Figures 2-3 and 2-4). Background nitrogen deposition at the project site is less than 3 kg/ha/yr (Tonnesen 2007; Nitrogen Deposition Analysis Figure 3-1). At the location approximately 2 km northeast of the facility where background rates are 3 to 5 kg/ha/yr, the project-related deposition was predicted to be 0.08 kg/ha/yr. The combined project plus background deposition rate is below the 5 kg/ha/yr CEC threshold at all offsite locations. Zero acres of sensitive habitat would be negatively impacted. The geographic extent of the nitrogen deposition isopleth maps covers the entire plume and a six-mile radius from the source, specifically identifying acres of sensitive habitat within each isopleth, as required by Appendix B (g)(13)(B)(ii). Modeling parameter files will be provided to CEC staff upon request.

Agency Correspondence — Appendix B (g)(13)(H)

Copies of preliminary correspondence between the Applicant and state and federal resource agencies regarding whether federal or state permits would be required for the proposed Project are provided in BAR Appendix B. Agencies contacted include the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), the U.S. Army Corps of Engineers (USACE), and the Regional Water Quality Control Board (RWQCB). Based on the biological analysis, required permits include a CDFW Incidental Take Permit for Mohave ground squirrel and, if active burrowing owl burrows are identified, a CDFW ITP for burrowing owl.

The National Marine Fisheries Service (NMFS) does not have jurisdiction over the proposed Project. The Project site is located in an inland desert environment with no anadromous fish species or marine resources present or affected. No NMFS consultation or permitting is required.

4.5 Cultural Resources

Introduction

This section of the Application examines the cultural resources in the Project site, as well as the prehistoric, ethnographic, and historical settings of the region. This section also summarizes the results of a cultural resources assessment, including background research and cultural resources survey of the Project site.

This section is based on an analysis of the archaeological, historic built architectural, paleontological resources, and other cultural resources in the Project site and Cultural Survey Areas, draws on archival research, an intensive Phase I cultural resources survey, Phase I survey and evaluations, and Significance Evaluations as more particularly described in the Phase I Survey of The Inyokern Data Center Project (Cultural Resources Report) prepared for the project by Robert Azpitarte, MA, Associate Archaeologist, Ashlee Younie, MA, RPA, Senior Archaeologist, and ASM Affiliates attached as Appendix B.1, as well as information contained in the confidential submittals attached as Appendix M.1 and M.2, and other background research materials.

The Cultural Resources Report was conducted in compliance with Section 5024.1 of the California Public Resources Code (PRC) and California Environmental Quality Act (CEQA) (Public Resources Code 21000 to 21189) and the CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387) and Appendix G regarding impacts on historical, archaeological, and tribal cultural resources.

If Native American historical or cultural resources are later discovered, consultation will be conducted for purposes of compliance with Senate Bill (SB) 18, and CEQA requirements pursuant to Assembly Bill (AB) 52, as well as the Project's potential impacts on tribal cultural resources.

Due to the confidential nature of the location of cultural resources, information regarding locations of cultural resources has been removed from the Cultural Resources Report and this section and are submitted as confidential information attached as Appendix M.1 and M.2. The CEC SPPE Appendix B requirements for this resource area are addressed in §4.5.5 of this chapter.

CEC SPPE Appendix B — Section (g)(2) Applicability

CCR Title 20, Division 2, Chapter 5, Appendix B, Section (g)(2) requires disclosure and analysis of cultural resources and tribal cultural resources, including: (A) identification of prehistoric and historic archaeological sites, (B) records searches, field surveys, and significance evaluations consistent with CEQA and PRC Section 5024.1, (C) assessment of potential for buried resources, (D) consultation with Native American tribes and the NAHC

Sacred Lands File, and (E) applicable mitigation measures for any significant resources identified.

All Section (g)(2) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.5.1–4.5.4. The Appendix B supplemental disclosure is provided in Section 4.5.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.5-A, immediately preceding Section 4.5.4.

4.5.1 Cultural Resource Terminology

For the purposes of CEQA, “cultural resources” generally refer to prehistoric and historical archaeological sites, isolates, and the built environment. Cultural resources can also include areas determined to be important to Native Americans. Below are definitions of key cultural resources terms used in this section.

Alluvium: A fine-grained fertile soil consisting of mud, silt, and sand deposited by flowing water on flood plains, in river beds, and in estuaries.

Archaeological Site: A site is defined as the place or places where the remnants of a past culture survive in a physical context that allows for the interpretation of these remains. Archaeological remains usually take the form of artifacts (e.g., fragments of tools, vestiges of utilitarian, or nonutilitarian objects), features (e.g., remnants of walls, cooking hearths, or midden deposits), and ecological evidence (e.g., pollen remaining from plants that were in the area when the activities occurred). Prehistoric archaeological sites generally represent the material remains of Native American groups and their activities dating to the period before European contact. In some cases, prehistoric sites may contain evidence of trade contact with Europeans. Ethnohistoric archaeological sites are defined as Native American settlements occupied after the arrival of European settlers in California. Historic archaeological sites reflect activities during the Historic period.

Artifact: An object that has been made, modified, or used by a human being.

Cultural Resource: Cultural resources are expressions of human culture and history in the physical environment, and may include archaeological sites, buildings, structures, objects, districts, works of art, architecture, and natural features that were important in past human events. They may consist of physical remains, but also may include areas where significant human events occurred, even though evidence of the events no longer remains. Cultural resources also include places that are considered to be of traditional cultural or religious importance to social or cultural groups.

Cultural Survey Area: All areas of potential permanent and temporary project impacts.

Ethnographic: Relating to the study of human cultures. “Ethnographic resources” represent the heritage resource of a particular ethnic or cultural group, such as Native Americans or African, European, Latino, or Asian immigrants. They may include traditional resource-collecting areas, ceremonial sites, value imbued landscape features, cemeteries, shrines, or ethnic neighborhoods and structures.

Historic Period: The period that begins with the arrival of the first non-native population and, thus, varies by area. In 1772, Commander Don Pedro Fages was the first European to enter Kern County, initiating the historic period in the Project study area.

Historical Resource: This term is used for the purposes of CEQA and is defined in the CEQA Guidelines (Section 15064.5) as: (1) a resource listed in, or determined to be eligible for listing in the California Register of Historical Resources (CRHR); (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency’s determination is supported by substantial evidence in light of the whole record.

Holocene: Of, denoting, or formed in the second and most recent epoch of the Quaternary period, which began 10,000 years ago at the end of the Pleistocene.

Isolate: An isolated artifact or small group of artifacts that appear to reflect a single event or activity. Because isolates may lack identifiable context, and may not have the potential to add important information about a region, culture, or person, they are generally not considered under CEQA to be historical or unique archaeological resources (CEQA Statute Section 21083.2 and CEQA Guidelines Section 15064.5).

Lithic: Of or pertaining to stone. Specifically, in archaeology lithic artifacts are chipped or flaked stone tools, and the stone debris resulting from their manufacture.

Pleistocene (Ice Age): An epoch in the Quaternary period of geologic history lasting from 1.8 million to 10,000 years ago. The Pleistocene was an epoch of multiple glaciation, during which continental glaciers covered nearly one fifth of the earth’s land.

Prehistoric Period: The era prior to 1772. The later part of the prehistoric period is also referred to as the protohistoric period in some areas, which marks a transitional period during which native

populations began to be influenced by European presence resulting in gradual changes to their lifeways.

Quaternary Age: The most recent of the three periods of the Cenozoic Era in the geologic time scale of the ICS. It follows the Tertiary Period, spanning 2.588 ± 0.005 million years ago to the present. The Quaternary includes two geologic epochs: the Pleistocene and the Holocene Epochs.

Stratigraphy: The natural and cultural layers of soil that make up an archaeological deposit, and the order in which they were deposited relative to other layers.

Tribal Cultural Resource: These are defined in Assembly Bill 52 (AB 52) as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe” that are either included or determined to be eligible for inclusion in the CRHR or included in a local register of historical resources (PRC Section 21074 (a)(1)).

Unique Archaeological Resource: This term is used for the purposes of CEQA and is defined in PRC Section 21083.2(g) as an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it either contains information needed to answer important scientific research questions and that there is demonstrable public interest in that information; has a special and particular quality such as being the oldest of its type or the best available example of its type; or, is directly associated with a scientifically recognized important prehistoric or historic event or person.

Unique Paleontological Resource: This term is defined as a fossil that meets one or more of the following criteria: (1) it provides information on the evolutionary relationships and developmental trends among organisms, living or extinct; (2) it provides data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein; (3) it provides data regarding the development of biological communities or interaction between plant and animal communities; (4) it demonstrates unusual or spectacular circumstances in the history of life; or (5) the fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

4.5.2 Environmental Setting

The Project site lies within the western Mojave Desert in the Indian Wells Valley, which is a southern extension of the Owens Valley. The Indian Wells Valley sits within the Basin and Range geomorphic province. The Basin and Range province is characterized by horst and graben structure, which is comprised of subparallel, fault-bounded ranges separated by interior-drained basins where lakes and playas often form (California Geological Survey, 2002). Indian Wells

Valley covers an area of approximately 600 sq. mi. It is bounded by the El Paso Mountains on the south, the southern Sierra Nevada Mountain Ranges to the west, the Spangler Hills on the southeast, the Argus Mountain Range on the east, and the Coso Mountain Range to the north. The primary physiographic feature of the Indian Wells Valley is the China Lake playa.

The Indian Wells Valley is an alluvial basin containing playas and alluvial fans that have merged into broad alluvial plains several miles wide (ASM, 2019). The floor of the valley slopes gently to the east towards the China Lake dry lake bed located approximately 9 miles away. The sediments underlying the Project site consist of recent alluvial deposits associated with fan complexes that have formed through the erosion of the surrounding highlands (ASM, 2019). These sediments are comprised of unconsolidated alluvial gravel and sand, as well as moderately to well-sorted gravel, sand, silt, and clay (ASM, 2019). The depositional history of the alluvial fan complexes dates to the early Pleistocene, with younger, Holocene-age deposits layered atop the older deposits. The depths of these alluvial deposits varies within the Indian Wells Valley. While they may be relatively shallow in the vicinity of the highlands, they may extend to a depth 2,000 feet near the valley center (Whitely and Carey, 2016).

The Project study area is characterized by continental climate conditions; with hot, dry summers and cold, dry winters. The area is home to many dry lake beds (playas), saline ponds, and north-south-trending mountain ranges that cast a rain shadow on the Indian Wells Valley. Between the mountains, the terrain is dominated by sand and gravel basins, which are characterized by a lack of water. The numerous faults along the valley margins tend to contain many of the locally occurring springs in the region. Vegetation in the Project Site is typical of the western Mojave Desert and consists of creosote, Joshua trees, buckwheat, cholla cactus, rabbitbrush, blackbrush, and seasonal grasses (cf. Schoenherr 1992).

Geoarchaeological Context

Geologically, the survey area is located on Holocene and Pleistocene alluvium with nonconforming plutonic rock (Dibblee and Minch 2008). United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil surveys identify the Project Site soils as composed of Wasco, Rosamond, and Cajon soil series. The Wasco series consists of very deep, well drained soils on recent alluvial fans and flood plains. The Rosamond series consists of deep, well drained soils that formed in material weathered mainly from granitic alluvium. The Cajon series consists of very deep, somewhat excessively drained soils that formed in sandy alluvium from predominantly granitic rocks.

A Caltrans geoarchaeological study (Meyer et al. 2010) that included the Project Site was consulted to identify the potential for buried archaeological sites. This study involved first determining the location and ages of late Pleistocene (>25,000 years old) landforms in the Mojave Desert. These were identified by combining a synthesis of 2,400 published paleontological, soils and archaeological chronometric dates with geoarchaeological field testing. The ages of surface landforms were then mapped to provide an assessment for the potential for buried archaeological

deposits. These ages were derived primarily from the Soil Survey Geographic Database (SSURGO) and the State Soils Geographic (STATSGO) database. A series of maps were created from this information that ranked locations in seven ordinal classes for sensitivity for buried soils, from Very Low to Very High.

Potential for Buried Cultural Resources and Tribal Cultural Resources

According to Meyer et al. (2010), the Project Site exists on a geological landform that is Moderately High for archaeological deposits with Moderate potential for buried sites. However, although the proposed Project is located almost entirely within undeveloped land, the disturbed context and land-use history suggest that the potential for intact buried archaeological deposits being encountered during construction is low.

Overall, given the local geomorphic setting, mapped soils, and observed disturbance, the potential for buried cultural resources and tribal cultural resources was assessed as low. This assessment informed field methods by confirming the need for a surface-only survey with no targeted subsurface testing.

Archaeological Context

The following summary provides a brief overview of the prehistory of the Inyokern region, generally a part of the Mojave Desert in eastern California, and which can be divided into seven time periods, as follows.

Pre-Clovis (earlier than 12,000 YBP)

The initial occupation of North America is still a topic of research and debate, with the date of initial human entry onto the continent not yet known and little understood about the lifeways of the earliest occupants. This Late Pleistocene occupation is generally referred to as the Pre-Clovis (cultural) Period, dated at earlier than 13,500 years before present (Y.B.P.). During this period, many of the valley floors of the Mojave Desert and the Great Basin were filled with a large lake system, including Pleistocene Lake China on the Naval Air Weapons Station (NAWS). Although a number of claims have been made for Pre-Clovis sites in the Mojave Desert generally, including in the Coso region specifically (see Davis 1978), these are as yet unverified. Possible Pre-Clovis petroglyph dates for the Coso Range, on China Lake NAWS, have been proposed by Whitley and Dorn (e.g., 1993, 2010; Whitley 2013). Rondeau 2023 indicates Folsom points have never been identified in California to date.

Paleoindian (11,200–9000 YBP)

The reduction of the Pleistocene lakes to shallow sloughs and swamps during the Terminal Pleistocene corresponds to the start of the Paleoindian Period, dating from about 12,000 to 9,000

Y.B.P. The hallmarks of this cultural period are fluted, collaterally flaked and basally thinned and ground Clovis spear points, Western Stemmed Tradition projectile points, and large, well-flaked but unfluted, lanceolate points. Substantial evidence of Paleoindian use of eastern California has been found in a number of areas, including NAWS China Lake (e.g., Davis 1978; Giambastiani and Bullard 2010). Paleoindian sites in the Great Basin and Mojave Desert are commonly (though not exclusively) found immediately above the lake bottoms, signaling the fact that adaptation to the drying lake system was an important aspect of early prehistoric lifeways. Currently there is no firm evidence indicating that eastern California Paleoindian peoples significantly relied on big-game hunting (or scavenging). A conservative interpretation of the chronometric results on Coso petroglyphs indicates that 18 percent date during the Paleoindian Period (Whitley and Dorn 2010; Whitley 2013), suggesting that the regional rock art tradition began during this interval.

Early Archaic (9000–6000 YBP)

The Early Archaic period (sometimes called the Western Pluvial Lakes Tradition, Lake Mojave, San Dieguito or Death Valley I) represents the early Holocene in paleoenvironmental terms. Its hallmark is generally considered to be the widely dispersed but ambiguously dated Western Stemmed Tradition spear points. These include the local variants known as Lake Mohave and Silver Lake points. Davis (1978; Davis et. al 1969) identified and discussed the importance of a number of Early Archaic sites in the Coso region. These are located in both the China Lake Basin and the Panamint Valley in former lacustrine environments and are indicative of lakeshore use if not occupation. Work at Early Holocene central Mojave Desert sites, primarily at Fort Irwin, in contrast has revealed considerable variability in lithic assemblages and materials, while also documenting relative continuity between early and middle Holocene faunal assemblages (Basgall 1993).

Middle Archaic (6000–4000 YBP)

Regardless of date of initial occupation of the region, substantial habitation did not occur until later, with the start of the Middle Archaic (or Pinto) Period, lasting from about 6000 to 4000 Y.B.P. The Middle Archaic corresponds to the Altithermal paleoenvironmental period, an extended time of dry climatic conditions. Hand stones and milling stones are much more abundant in Middle Archaic assemblages than in previous time periods and are represented by bulky, well-worn, shaped variants that were routinely transported and maintained. In eastern California and the Mojave Desert, Middle Archaic population densities overall remained low. Subsistence focused partly on game procurement, but the importance of plant resources increased substantially. Faunal assemblages from many Pinto sites indicate that large artiodactyls were taken whenever possible, but hunting emphasized small game such as rabbits, hares, rodents, and reptiles (Basgall 1994). The fact that milling implements are comparable in frequency to later assemblages implies that Middle Archaic populations had already become broad-spectrum foragers.

Late Archaic (4000–1500 YBP)

The Late Archaic Period (also called Elko, Gypsum or Newberry) lasted from about 4000 to 1500 Y.B.P. This correlates with improved and wetter environmental conditions across western North America. The start of the Late Archaic in the Coso region is posited to represent the initial establishment of the primary settlement and subsistence systems that are currently archaeologically visible (Whitley 1994, 1998). The Late Archaic also witnessed the beginning of the intensive exploitation of the Coso Sugarloaf obsidian quarry, an event that apparently correlates with the beginning of the inland-to-coastal obsidian trade in south-central California. The primary temporal diagnostics for the Late Archaic are Elko and Gypsum series projectile points. Hildebrandt and McGuire (2002; McGuire and Hildebrandt 2005) suggest that this period included intensive big-game hunting and that the Coso petroglyphs represent a hunting cult associated with this subsistence emphasis, reflecting an example of costly signaling theory.

Haiwee (1,500–800 Y.B.P.)

The Haiwee (also called the Rose Spring or Saratoga Springs) Period is differentiated from the earlier Late Archaic/Elko Period by the introduction of the bow and arrow and a change from spear points to arrow points at circa A.D. 500 (cf. Yohe 1992). According to Hildebrandt and McGuire (2002; McGuire and Hildebrandt 2005; Gilreath and Hildebrandt 2008), and Garfinkel (2006, 2007; Garfinkel et al. 2010), this technological change increased the efficiency of big-game hunting leading to overhunting, a reduction in bighorn herd size, and a resulting intensification in the hunting cult rituals that produced Coso rock art. These archaeologists suggest that, due to the extirpation of the herds from overkill, the creation of pecked petroglyphs ended circa A.D. 1200–1300. Whitley (1994, 1998), in contrast, hypothesizes that petroglyph-making rituals also intensified during this period, but that this intensification was associated with rain shamanism resulting from droughts due to the Medieval Climatic Anomaly, a period of global climatic instability.

Numic (800–140 Y.B.P.)

The Numic (or, in some areas, Late Prehistoric, Shoshone or Marana) Period runs from about 800 Y.B.P. to the Historic Period and corresponds to the Little Ice Age. It is distinguished from the previous Haiwee interval by the introduction of brown-ware ceramics and a change in projectile points: from Rose Spring to Desert Side-notched and Cottonwood Triangular types. The Numic Period is considered to represent the appearance of the historical/ethnographic aboriginal pattern of lifeways. The relationship between the Numic and the earlier Haiwee period inhabitants is controversial, and no consensus has been achieved on this topic among archaeologists (see papers in Madsen and Rhode 1994). Based on one linguistic reconstruction, the eastward spread of the Numic languages (Shoshone and Northern and Southern Paiute) across the Great Basin is hypothesized to have occurred roughly 1,000 or more years ago. Some archaeologists have interpreted the theorized language change in terms of population movements and ethnic group replacements, and they have linked this perspective to observable prehistoric subsistence changes (e.g., Bettinger and Baumhoff 1982; Garfinkel 2007). The resulting Numic spread hypothesis

suggests that Numic-speaking peoples migrated out of eastern California at about A.D. 1200 – 1300, outcompeting and replacing an earlier Pre-Numic population in the remainder of the Great Basin. Other archaeologists, partly based on different historical linguistic reconstructions, reject the Numic spread hypothesis and argue that Numic-speaking peoples have been in place, throughout the Great Basin, for a much longer period of time (e.g., Aikens and Witherspoon 1986; Loendorf 1999; Whitley et al. 1999a, 1999b). They argue that the petroglyph tradition has been continuous, into the historic period.

Ethnographic Context

The ethnographic period in the region is generally taken to begin about A.D. 1850. At that time the Ridgecrest region fell near to the boundary between two Uto-Aztecan language branches (Numic and Tubatulab), three of the Numic languages (Shoshone and Northern and Southern Paiute), and for the Shoshone, between two distinct bands (Whitley et al. 2006).

Steward (1938) records that the Panamint Valley, located east of the Coso Range, was predominantly occupied by Panamint (or Koso) Shoshone (the California Central Numic language) from about Ballarat northward, with some admixture of Kawaiisu (the California Southern Numic language); the Kawaiisu were the predominant (but not exclusive) residents from Ballarat southward (some Panamint Shoshone also being present). Death Valley was occupied by representatives of three Numic languages. The approximately northern one-third was the domain of the Panamint Shoshone. In central Death Valley, around Furnace Creek, a mixture of Panamint Shoshone, Kawaiisu, and Southern Paiute (the Nevada Southern Numic language) purportedly lived. Southern Death Valley was apparently the domain of the Southern Paiute. The Kawaiisu residing in central Death Valley and Panamint Valley were known to the Shoshone as the Panümunt (Steward 1938) or, in its Southern Paiute form, Panamaitsiwi (Laird 1976), from which the toponymic “Panamint” is derived. This term has been applied to local geographical features, as well as to the language of the locally resident Shoshone, who were actually not “Panamints” at all. All or most of the Coso Range was occupied by the Koso Shoshone, who had villages at Coso Hot Springs, Coso Cold Springs (south of Darwin), Little Lake and Olancha, thereby including the south shore of Owens Lake (Steward 1938). The Northern Paiute occupied Owens Valley from the lake northward. The El Paso Mountains, which form the southern border of the Indian Wells Valley, were in Kawaiisu territory. The Ridgecrest area falls near the boundary between the Coso Shoshone and Kawaiisu.

Complicated though this pattern may seem, Fowler et al. (1995) have recently pointed out that, due to the low population density and band marriage exogamy, familial ties were quite widespread. The result was that while specific language and band territories might be fairly well defined, any given individual’s ties to and associations with the regional landscape were broad and typically exceeded the bounds of the band territory. This circumstance points to the fact that territorial boundaries in this sense had little direct bearing on many aspects of indigenous life.

Despite these language and band territorial differences, there were a series of cultural similarities between the various tribes. The ethnographic lifeways of the area's inhabitants can then be sketched in general Numic terms. Relevant ethnographies, from which a synthesis for this region may be drawn, have been published by Steward (e.g., 1933, 1938, 1941, 1943), Kelly (1939), Laird (1976, 1984) and Zigmond (1986), among others. Based on these and other sources, ethnographic patterns in the region can be summarized as follows.

As regards subsistence, the Numic seasonal round involved alternating periods of aggregation into winter villages, and then dispersal into nuclear families. Winter village aggregation was predicated on stockpiling the fall pinyon harvest, combined with rabbit hunting. Winter aggregation typically occurred at major springs on the valley floors, where a band would congregate and live in pit houses. In the Coso Range, there were four of these. Steward (1938) also has noted that Panamint Valley was so arid that it effectively had no winter aggregation villages; the historical rancheria and reservation at Indian Ranch, in the northern part of the valley, was only established historically, once a well had been dug.

Following winter aggregation, usually around April, nuclear families dispersed in the early spring, initially in search of ripening seeds and greens on open alluvial fans. Seed collecting continued into the summer, with families moving to progressively higher elevations, likely including into the upland areas of the Coso Range, in search of ripening plants. By late summer (July through August), families were concentrated in the higher elevations of local mountain ranges. By early fall, pinyon exploitation had begun again at the higher elevations. With the return to the winter villages following the pinyon harvest, the seasonal round was completed. Steward (1938) noted that the Coso and Panamint ranges were exploited for seeds, roots, tubers and pinyon nuts. These were primarily areas used by dispersed, single-family groups during the summer and fall. Contemporary Timbisha Shoshone peoples, residing in Death Valley, continue to remember the quality of the pinyon nuts from the Coso Peak area (Fowler et al. 1995).

The social organization of the Numic has been a point of controversy. Although it is clear that regional bands and headmen existed during the Historical Period, Julian Steward (1938, 1955) argued that this was a recent development resulting from contact, emanating from the Euro-American need to have a single Native American spokesman and leader with whom they could interact. Omer Stewart (1939, 1966), in contrast, contended that Numic bands were the true aboriginal organizational system, and that they therefore had deep time depth.

Bands were named, regional land-holding groups that fell under the nominal leadership of a headman-shaman. This individual was responsible for organizing and scheduling group subsistence activities, such as rabbit drives, and ceremonies such as the Round Dance. In his role as shaman/healer, he conducted curing rituals. Although these are often viewed as primarily medical in nature, they also served as a form of social conflict resolution in that they alleviated social disharmony and stress instead of providing pharmacological cures for perceived ailments (Laird 1976, 1984).

Regional Shoshone bands within the general area included the Coso, with a band territory known as Kuhwiji, and whose headman at least until 1874 was Malarango (Chalfant 1933). (Malarango is presumably the origin for the local toponym “Maturango” Peak.) Another band may have been present in northern Death Valley, with Dock as a headman in the historical period. The Kawitch (or Kauyaichits) Shoshone from Ash Meadows in western Nevada comprised a third band whose territory may also have extended into Death Valley. According to military records, “Cowitch” was the headman of the Kawitch in 1871 (Cragen 1975). No data on political organization were collected for the Kawaiisu, although they were the resident group in the El Paso Mountains, which borders Indian Wells Valley on the southwest. Southern Death Valley apparently fell within the domain of the Las Vegas Southern Paiute band (Kelly 1939).

Beyond the band as an autonomous land-holding unit, Numic social organization was patrilineal and patrilocal, although temporary matrilocal residence, serving as a form of bride-service, was practiced for about one year following marriage.

Historical Background

The first documented American exploration of the Mojave Desert began with Jedediah Smith, who went across the western end from Cajon Pass along the southern edge of Antelope Valley into the San Joaquin Valley in 1826-27. Documented exploration of the Indian Wells Valley area occurred in 1834 with the passage of Captain Joseph R. Walker and his party who were looking for an all-season route across the Sierra Nevada (Walker 1971:4). Walker, along with noted explorer Kit Carson, led part of John C. Frémont’s third expedition across Walker Pass and into the Kern River Valley (Dillon 1984). The Rogers and Manly party, which was also known as the Jayhawkers or Death Valley ’49ers, crossed the region in their 1849 expedition across the Mojave Desert. Lieutenant Edward Beale, leading a caravan of camels, also came across the southern side of the Mojave in his 1857 trip to Fort Tejon (Bancroft 1963; Settle 1963:61; Boyd et al. 1982). Non-native explorers often followed existing Native American trails and footpaths or used Native American guides, knowing that they were likely to lead to settlements, often steering toward water and food sources along the way.

The discovery of gold in northern California in 1848 resulted in a dramatic increase of population, mainly consisting of fortune seekers and gold miners, who began to scour other parts of the state. After 1851, when gold was discovered in the Sierra Nevada Mountains in eastern Kern County, the population of the area grew rapidly (JRP Historical Consulting 2009). As more Euro-American settlers came to the valley and the population rose, tensions between the settlers and the native populations flared, eventually leading to the Owens Valley Indian War of 1862-1863. The war began with skirmishes between groups of settlers and the Owens Valley Paiute and their Shoshone and Kawaiisu allies. Eventually, the United States intervened and established Camp Independence, later becoming Fort Independence. In 1863, after numerous battles and an attempt at peace, large numbers of Owens Valley Paiute were removed from the valley to Fort Tejon (Whitley et al. 2006).

Local Setting

The study area, consisting of open flat land, is within the census-designated place (CDP) of Inyokern, an unincorporated area of Kern County, California. This places the Project on the open flats of the Indian Wells Valley, a western extension of the Mojave Desert, and at an elevation range of approximately 2,415 feet (ft.) to 2,435 ft. above mean sea level (amsl). Specifically, the Project is within Sections 19, 20, 29, and 30, in Township 26 South, Range 39 East (T26S/R39E), Mount Diablo Base and Meridian (MDBM) as illustrated on the Inyokern USGS 7.5-minute topographic quadrangle.

The Project Site consists of approximately 50 acres of undeveloped land including 4 Assessor's Parcel Numbers (APN): 084-010-43, 084-010-44, 084-010-45 and 084-010-48. The cultural study area involved an area of approximately 95 acres of undeveloped private land, including a 200-ft. buffer area covers 19 Assessor's Parcel Numbers (APN): 084-010-17, 084-010-18, 084-010-21, 084-010-22, 084-010-33, 084-010-35, 084-010-42, 084-010-43, 084-010-44, 084-010-45, 084-010-46, 084-010-47, 084-010-48, 084-010-58, 084-010-59, 084-021-18, 084-040-03, 352-085-07, 352-501-11.

Inyokern was established as a sparse agricultural community in the late nineteenth century. Once the Southern Pacific Railroad (SPRR) established Siding #16, also known as Magnolia, a small town began to form in 1908 (Inyokern Community Center 2025). The economic orientation of the community centered around agriculture, but it became a railroad town when the construction of the Los Angeles Aqueduct began in 1908. Coupled with the construction of the Los Angeles Aqueduct, a small community began to develop in the twentieth century. During the construction of the aqueduct, the Lone Pine Branch of the Southern Pacific Railroad (SPRR) was established to transport personnel and materials. Additional expansion to Indian Wells Valley area began with the onset of World War. Kern County "Airport No. 8" in Inyokern was chosen as the location to stage a rocket program. The airport itself was constructed in 1935 to connect Inyokern to other regions (Indian Wells Valley Airport District 2015). Operations moved from Inyokern to the Ridgecrest area with the establishment of the Naval Ordnance Test Station (NOTS) in 1943. When the NOTS was established, a spur line was constructed to connect it to the Lone Pine Branch of the SPRR; however, the branch and spur were abandoned by the early 1980s (Virtual Transportation Museum, 2011). Today, the economic orientation of Inyokern is associated with the NOTS, and the community provides housing and services for those working on the base. The Indian Wells Valley remains a sparsely populated area where individuals live for a variety of reasons that largely depend upon the national economy and socioeconomic trends.

The origins of the adjacent City of Ridgecrest, located east of Inyokern, extend back to 1912, when it was the small farming village of Crumville, named after a local dairy farmer. The town grew slowly with the first post office not opening until 1941, and with the population still fewer than 200 residents. The Naval Ordnance Test Station (NOTS, precursor to NAWA), opened in 1943, during World War II, and the town has been closely allied with the Department of the Navy

specifically, and the defense industry generally, since that time. Ridgecrest was incorporated in 1963, and it currently has approximately 27,000 residents.

Existing Cultural Resources

Archival Records Search

An archival records search was conducted at the California State University, Bakersfield, Southern San Joaquin Valley Information Center by SSJVIC staff members in January 2026, to determine: (i) if precontact or historical archaeological sites had previously been recorded within the study area; (ii) if the study area had been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive. Additionally, a search of the NAHC Sacred Lands File was requested to ascertain whether traditional cultural places or cultural landscapes had been identified within or adjacent to the Project Site. The results of this archival records search are summarized below. Local registers and applicable city/county-listed historic resources and repositories were reviewed. No additional listed cultural resources were identified beyond those documented through CHRIS and field survey. The literature search was conducted by, or under the direction of, individuals meeting the Secretary of the Interior's Professional Standards for archaeology; full staff qualifications are provided in the Cultural Resources Report.

The literature search and APE encompass the Project site and all linear facilities, including the 99 MW campus and the 115 kV interconnection, extending the required buffers along each alignment consistent with Appendix B(g)(2)(B) and (C). If any alignment changes outside the evaluated area, additional records search and field survey will be completed prior to construction.

According to the records search, 10 previous linear and block studies had covered large portions of the Project Area provided in the below **Table 4.5-1** (Restating Table 1, Cultural Resources Report). These previous studies resulted in the identification and recordation of seven cultural resources that are historic in nature presented in the below **Table 4.5-2** (Restating Table 2, Cultural Resources Report). An additional 26 previous surveys were completed within a 1-mile (mi.) radius of the Project Area presented in the below **Table 4.5-3** (Restating Table 3, Cultural Resources Report), resulting in an additional 42 cultural resources within a 1-mi. radius as presented in **Table 4.5-4** (Restating Table 4, Cultural Report). Due to the age of the previous field surveys within the Project Area, which exceed the limits for baseline data under CEQA, those areas were re-surveyed by ASM for the current proposed project.

Of the 49 cultural resources identified within the records search area as within the Project Area, seven intersect the defined APE/limits of disturbance and 42 are outside the Project Area (See **Table 4.5-2** and **Table 4.5-3**). ASM reviewed the resource forms and their locations, to determine if any represented duplicate, relocated, or segmented records, and did not identify any resources meeting these criteria.

**Table 4.5-1: Previous Reports in The Project Site
(Restating Table 1, Cultural Resources Report)**

Report No.	Year	Author (s)/Affiliation	Title
KE-00289	1993	Berg, John / Far Western Anthropological Research Group, Inc.	A Cultural Resources Survey and Inventory for the Mojave Pipeline/Coso Lateral
KE-00309	1990	Burton, Jeffery F. / Trans-Sierran Archaeological Research	An Archaeological Survey of the Contel Bishop to Inyokern Fiberoptics Line, Inyo and Kern Counties, California
KE-02188	1992	Hall, M.C., Mikesell, Stephen, and Riggs, David / Far Western Anthropological Research Group, Inc. - JRP Historical Consulting Services	Cultural Resources Survey of a Portion of the Former Southern Pacific Mojave-Owens Branch Railroad, Inyo and Kern Counties, California
KE-02553	1998	Burke, Thomas / Archaeological Research Services, Inc.	Re-Examination of Previously Documented Cultural Resources on the Union Pacific Railroad Lone Pine Branch, MP 430.00 Searles to MP 519.34 Near Lone Pine, on Public Lands Administered by the BLM, Ridgecrest Office
KE-03497	2006	Wickstrom, Brian / California Department of Transportation	Historic Property Survey Report for the Inyokern Four Lane Project Kern County, California
KE-03574	2006	Switalski, Hubert J. / AMEC Earth and Environmental, Inc.	Archaeological Investigations for Southern CA Edison's Proposed Overhead Line Removal and the Installation of an Underground Conduit, Inyokern, Kern County, California

Report No.	Year	Author (s)/Affiliation	Title
KE-03690	2008	Wickstrom, Brian / California Department of Transportation	Supplemental Historic Property Survey Report for the Inyokern Four Lane Project Kern County, California
KE-03777	2010	Palm-Leach, Laura, Brandy, Paul, King, Jay, Mikkelsen, Pat, Seil, Libby, Hartman, Lindsay, Bradeen, Jill, Larson, Bryan, Freeman, Joseph, Costello, Julia, Rosenthal, Jeffrey, and Jones, Deborah / Far Western Anthropological Research Group, Inc.	Cultural Resources Inventory of Caltrans District 6 Rural Conventional Highways in Fresno, Western Kern, Kings, Madera, and Tulare Counties Summary of Methods and Findings
KE-04674	2014	Sampson, Seth / EMD NAWS China Lake	Repair by Replacement-Water Main from Harvey Field to Wells 30 and 31 Point of Connection, Kern County, California
KE-05045	2016	Whitley, David S. and Carey, Peter A. / ASM Affiliates	Phase I Survey & Phase II Significance Evaluations, Inyokern Solar Project, Kern County, California

**Table 4.5-2 – Previously Recorded Resources In the Project Site
(Restating Table 2, Cultural Resources Report)**

Resource	Type	Age	Description
P-15-002050	Site	Historic	Segment of China Lake Railroad Spur grade
P-15-017779 (Note 1)	Site	Historic	Refuse scatter
P-15-019864	Site	Historic	Refuse scatter
P-15-019867	Site	Historic	Refuse scatter
P-15-019869	Site	Historic	Refuse scatter

Resource	Type	Age	Description
P-15-019870	Site	Historic	Refuse scatter
P-15-020317	Structure	Historic	Culvert

Note 1: Although the site boundary for P-15-017779/ CA-KER-09810H (a historic refuse scatter) was reported to be within the current Project Area by the SSJVIC, ground observations confirmed that this resource falls entirely outside of the Project Area footprint. The site was not investigated for this reason, and the existing site record was not updated. The site will be excluded from potential impacts and is not considered further in this report.

**Table 4.5-3 - Previous Reports within 1 mile of the Project Area
(Restating Table 3 of the Cultural Resources Report)**

Report No.	Year	Author (s)/Affiliation	Title
KE-00035	1994	Laylander, Don / California Department of Transportation	Negative Archaeological Survey Report. Highway Project Description: District 09, Kern County, Expenditure Authorization 262101
KE-00047	1995	Laylander, Don / Caltrans, District 9	Negative Archaeological Survey Report. Highway Project Description: District 09, Kern County, Route 395, Post Miles 23.1, Expenditure Authorization 952137
KE-00119	1994	Laylander, Don / Caltrans, District 9	Archaeological survey report for the Wash Rack Wastewater Containment Project, Kern, Inyo, and Mono Counties, California
KE-00532	1978	Jelinek, James C. and Young, Daniel L. / Unknown	Historic Properties Survey Report, Route 09- KER-178, PM R93.2/100.6, Inyokern Road, Inyokern to Ridgecrest
KE-00567	1986	Lawson, Jan B. and Individual Consultants Lawson, Clifton E. / Individual Consultants	Report of Archaeological Survey for James H. Pappe, June 1986

Report No.	Year	Author (s)/Affiliation	Title
KE-00568	1987	Lawson, Jan B. and Individual Consultants Lawson, Clifton E. / Individual Consultants	Report of Archaeological Survey for Ethel M. Burge
KE-00572	1995	Laylander, Don / California Department of Transportation	Negative Archaeological Survey Report DOT- 09-KER- 395, PM 15.0/29.3, EA 250000
KE-00576	1985	Lerch, Michael K. / Michael K. Lerch & Associates	Archaeological Survey of the Proposed Kerr- McGee Water Line Easement, China Lake Naval Weapons Center, Kern County, California
KE-00733	1990	Norwood, Richard H. / RT Factfinders	Cultural Resource Survey for Tentative Parcel Map No. 9457, 20 Acres in Inyokern, Kern County, California
KE-00744	1991	Norwood, Richard H. / RT Factfinders	Cultural Resource Survey for a 10.19 Acre Property and a 22.7 Acre Property, Inyokern, CA
KE-01828	1978	Young, Daniel L. / Individual Consultant	Archaeological Survey Report for Highway Improvement Projects Between China Lake Boulevard and Highway 395 On 9-KER-178- R93.2/96.1, E.A. 073201, 9-KER-178- 96.1/99.1, E.A. 073101, 9- KER-178- 99.1/100.3, E.A. 060301
KE-02016	1989	Taylor, Thomas / Southern CA Edison, Environmental Affairs Division	Archaeological Survey Report Inyokern- Kramer 220 KV Transmission Line Conductoring Project Tower Sites, Pulling Areas, Sleeve Areas and Wire Setups Kern and San Bernardino Counties, California
KE-02112	1994	Laylander, Don / California Department of Transportation	Archaeological Survey Report for the Wash Rack Wastewater Containment Project, Kern, Inyo, and Mono Counties, CA

Report No.	Year	Author (s)/Affiliation	Title
KE-02736	1999	Shepherd, Carolyn / China Lake NAWS, CA	Demolition of 18 Miles of Abandoned Railroad Track, Naval Air Weapons Station, China Lake, Kern County
KE-02862	2003	Wickstrom, Brian / California Department of Transportation	Archaeological Survey Report for the Inyokern Four-Lane Project, Kern County, CA (06-KER-395, PM 14.8/23.0)
KE-02900	2004	Darcangelo, Michael, Hildebrandt, William R., and King, Jerome / Far Western Anthropological Research Group, Inc.	Archaeological Survey of the Southern and Western Portions of the Security Perimeter Fence Line, Naval Air Weapons Station, China Lake
KE-03352	2006	Hudlow, Scott M. / Hudlow Cultural Resource Associates	A Phase I Cultural Resource Survey for APNs 084-272-13, 14, and 15, Brown Road and Las Flores Avenue, Inyokern, Kern County, California
KE-03619	2007	Switalski, Hubert / AMEC Earth & Environmental, Inc.	Archaeological Survey Report for the Southern California Edison Company's Realignment of Overhead Utilities Along the Highway Six 12 kV Distribution Circuit (DWO 6286-6707, AI 7-6705), Inyokern, Kern County, California
KE-03661	2008	Lewis Pruett, Catherine / Three Girls and a Shovel (Bakersfield)	A Cultural Resources Assessment of Approximately 80 Acres West of Inyokern, Kern County, California
KE-03771	2010	Wickstrom, Brian / California Department of Transportation, Central California Cultural Resources Branch	Archaeological Evaluation Project Report for the Inyokern Four-Lane Project Kern County, California
KE-03835	2009	Romani, John F. / Compass Rose Archaeological, Inc	Inyokern Streets Improvements Project, 3rd Street, Drummond Avenue, and Las Flores Avenue (approximately 2.25 miles), Kern County, California

Report No.	Year	Author (s)/Affiliation	Title
KE-04043	2010	Romani, John F. / Compass Rose Archaeological, Inc.	Archaeological Survey Report Improvements to Brown Road between Ridgecrest Boulevard to Athel Avenue (Approximately 8.8 miles), Kern County, California
KE-04384	2010	Duran, Christopher A., Trevino, Michelle, and Johnson, Lynn / Epsilon Systems Solutions, Inc.	Volume I: Report and Appendices A and D: Downs Substation Cultural Resources Survey, San Bernardino and Kern Counties, California
KE-04431	2013	Ugan, Andrew and Rosenthal, Jeffrey / Far Western Anthropological Research Group	Archaeological Survey of 12,457 Acres of the Naval Air Weapons Station China Lake North and South Ranges, Inyo, Kern, and San Bernardino Counties, California.
KE-04542	2012	Sampson, Seth / Naval Air Weapons Station, China Lake	Cultural Resources Inventory Negative Report - Seabee Water Well Drilling Project 2012-017
KE-05256	2021	Wesson, Alex; Bever, Michael; Allen, Mark W.; Gusick, Amy E.; Martinez, Mandi; Winslow, Diane L.; Jordan, Amy; Reeve, Rowland; Ainia, Amira; Hesse, India S.; Lisboa, Rafella; and Dumm, Katie / SWCA Environmental Consultants	Class III Cultural Resources Inventory For the TLRR Evaluation Project Along The Ivanpah–Control 115-Kv Transmission Line, Inyo, Kern, And San Bernardino Counties, California

**Table 4.5-4: Previous Reports within 1 mile of the Project Area
(Restating Table 4 of the Cultural Resources Report)**

Resource	Type	Age	Description
P-15-008758	Isolate	Pre-contact	CCS flake
P-15-008762	Isolate	Pre-contact	Metate

Resource	Type	Age	Description
P-15-008763	Isolate	Pre-contact	Mano
P-15-008764	Isolate	Pre-contact	Core
P-15-012070	Site	Historic	Historic road segment
Resource	Type	Age	Description
P-15-012435	Site	Historic	Refuse scatter
P-15-012436	Site	Historic	Foundation
P-15-012437	Site	Historic	Refuse scatter
P-15-012543	Structure	Historic	Historic wagon road
P-15-013796	Structure	Historic	SCE Inyokern Substation Complex
P-15-013823	Structure	Historic	Powerline and Utility pole
P-15-013824	Structure	Historic	Powerline and utility poles
P-15-015202	Site	Historic	Refuse scatter
P-15-015203	Site	Pre-contact	Lithic scatter
P-15-015696	Structure	Historic	Bridge
P-15-015969	Site	Historic	Refuse scatter
P-15-017435	Site	Historic	Refuse scatter and spur roads
P-15-017437	Site	Historic	Refuse scatter
P-15-017438	Site	Historic	Refuse scatter
P-15-017441	Site	Historic	Road and refuse scatter
P-15-017447	Site	Historic	Road and refuse scatter
P-15-017654	Site	Historic	Refuse scatter
P-15-017656	Site	Historic	Refuse scatter
P-15-019865	Site	Historic	Refuse scatter

Resource	Type	Age	Description
P-15-019866	Site	Historic	Refuse scatter
P-15-019868	Site	Historic	Refuse scatter
P-15-019871	Site	Historic	Refuse scatter
P-15-019872	Site	Historic	Refuse scatter
P-15-021058	Isolate	Historic	Can scatter
P-15-021059	Isolate	Historic	Can scatter
P-15-021099	Site	Historic	Refuse scatter
P-15-021101	Site	Historic	Refuse scatter
P-15-021102	Site	Historic	Refuse scatter
P-15-021115	Site	Historic	Refuse scatter
P-15-021210	Structure	Historic	Tower line
P-15-021211	Structure	Historic	Access road
P-15-021247	Structure	Historic	Unpaved road
P-15-021248	Structure	Historic	Transmission line
P-15-021249	Structure	Historic	Weiman Avenue/road
P-15-021250	Structure	Historic	Access road
P-15-021251	Structure	Historic	Sydnor Ave/ unpaved road
P-15-021252	Structure	Historic	Felspar Ave/ unpaved road

As indicated above in Note 1 of Table 4.5-2, although the site boundary for P-15-017779/ CA-KER-09810H (a historic refuse scatter) was reported to be within the current Project Area by the SSJVIC, ground observations confirmed that this resource falls entirely outside of the Project Area footprint. The site was not investigated for this reason, and the existing site record was not updated. The site will be excluded from potential impacts and is not considered further in this report.

Field Survey

A Phase I intensive pedestrian field survey was conducted within the Project site and associated study area. The survey was conducted on January 8, 2026, by ASM Affiliates, with Robert Azpitarte, MA, serving as field director and Margarita Medina Lemus, BA, providing field

assistance. The survey extended no less than 200 feet around the Project site, substations, and staging areas, and no less than 50 feet to either side of the right-of-way of the 115 kV interconnection linear facility route, consistent with Appendix B(g)(2)(C). Survey personnel walked parallel transects spaced no greater than 15 meters (m) apart. Transect endpoints were recorded using a Trimble® GPS unit. Vegetation in the Project Site is characterized by creosote, Joshua trees, buckwheat, cholla cactus, rabbitbrush, blackbrush, ephedra, and cholla, as well as seasonal grasses and wildflowers.

Survey Results

As a result of the survey, six (6) previously recorded resources were successfully located and updated. These consist of site P-15-002050/CA-KER-002050H, a segment of the SPRR; P-15-019864/CA-KER-010862H, a historic refuse scatter and fence line; P-15-019867/CA-KER-010865H, a historic refuse scatter; P-15-019869/CA-KER-010867H, a historic refuse scatter with earthen features; P-15-019870/CA-KER-010868H, a historic refuse scatter; and P-15-020317, a segment of California State Route 178. One resource was found to be entirely outside of the Project Site and excluded from investigation. No new archaeological sites or historic properties were discovered within the Project Site.

All these sites have been disturbed, mainly in the form of modern refuse dumping. Some sites have also been affected by modern road construction and off-highway vehicle trails, with trash pits dug on at least one site. The sites contain materials dating from early-to-mid-twentieth century mixed with more recent (including contemporary) debris and contain a mixture of domestic and fragmented construction remains. Further, the concentration of these sites on the edge of Inyokern reflects casual and illicit trash dumping, most likely by local residents. This pattern of dumping appears to have started by about 1920. Based on artifacts and refuse observed on the sites, it has continued into contemporary/modern times. The result is a series of mixed-age refuse dumps, none of which have an associative context.

All previously identified resources are historic in age, lack integrity, and are recommended not eligible for inclusion on the CRHR. DPR forms for all resources documented/updated during this study are included in Appendix M.2, consistent with Appendix B(g)(2)(C)(iii). Trinomial and HRI identifiers have been confirmed with CHRIS records and are provided on each DPR form (or 'Not assigned' where applicable). Each form includes an explicit CRHR eligibility recommendation and integrity rationale.

Supplementary Findings Regarding Previously Recorded Resources

P-15-002050/CA-KER-002050H

This description serves as supplementation to a previously recorded segment of site P-15-002050/CA-KER-002050H (SPRR). The recorded segment measures 1,550 ft. in length and is located just northeast of the intersection of State Highway 178 and Brown Road in Section 29, T26S/R39E.

This segment of P-15-002050 was previously recorded by J. Berg in 1992 (Hall 1993) and reported to consist of a building foundation (concrete slab) and track crossing (“Locus O;” Inyokern Station). The main rail grade is described elsewhere with only the earthen grade and no ballast, ties, or crossbeams remaining. Additional features associated with this segment include remnants of railcar “Siding 16” (F1–F3) which itself measures 950 ft. in length. According to the Historical Marker Database (HMDB 2026), Siding 16 was established in 1909 and was the beginning of the town of Inyokern. Originally composed of a raised unloading platform with a covered shed at one end, the siding served as the supply station for Short Canyon and Indian Wells Canyon. Later, that unloading siding would be made into a depot.

F1 consists of an intact concrete platform that measures 28 ft. by 15 ft. by 10 in. tall. In 2009, a commemorative plaque was installed immediately next to this feature, and concrete pier blocks were incorporated. F2 and F3, each approximately 20 ft. in length, consist of segments of partially graveled over siding with only wooden tie beams and bolts visible. These features were located immediately adjacent to the depot on the east until c. 1970 (NETR 2026). Previously recorded site P-15-019869/CA-KER-010867H, immediately east of this siding location, also contains a possibly associated concrete feature. Overall, this segment of the SPRR can be considered in poor condition.

The segment lacks integrity and has experienced decades of disturbances mainly from off-road recreation and right-of-way (ROW) maintenance. Modern debris was noted across its entire length. Although the construction and early use of this railroad was a key contributor to an important historical event (Criterion 1), this segment lacks integrity of materials, design, feeling, association, and workmanship; thus, it is unable to convey its significance.

P-15-019864/CA-KER-010862H

This site was originally recorded as a historic refuse scatter by ASM Affiliates in 2016 and is composed of an early-to-mid-twentieth century domestic refuse scatter with five main concentrations and a dilapidated fence line. While generally unchanged, only a small portion of the previously recorded northern site boundary extended into the current study area. Within this portion, only a concentration of cans (C1) was observed. Overall, the site is in poor condition.

Site P-15-019864/CA-KER-010862H was previously recommended not eligible for inclusion on the CRHR by ASM Affiliates in 2016 (Carey 2016a). The site lacks integrity of materials, design, feeling, association, and workmanship; thus, it is unable to convey its significance.

P-15-019867/CA-KER-010865H

This site was originally recorded as a historic refuse scatter by ASM Affiliates in 2016 and is composed of an early-to-mid-twentieth century domestic refuse scatter with one main concentration. The site remains as last described. While generally unchanged, only a small portion of the previously recorded southern site boundary extended into the current study area, and only two bimetal cans were observed within it. Overall, the site is in poor condition.

Site P-15-019867/CA-KER-010865H was previously recommended not eligible for inclusion on the CRHR by ASM Affiliates in 2016 (Carey 2016b). The site lacks integrity of materials, design, feeling, association, and workmanship; thus, it is unable to convey its significance.

P-15-019869/CA-KER-010867H

This site was originally recorded as a historic refuse scatter by ASM Affiliates in 2016 and is composed of an early-to-mid-twentieth century domestic refuse scatter with three main concentrations and four features. During the current study, the site was found to be unchanged and is as last described. Overall, the site is in poor condition.

Site P-15-019869/CA-KER-010867H was previously recommended not eligible for inclusion on the CRHR by ASM Affiliates in 2016 (Carey 2016c). The site lacks integrity of materials, design, feeling, association, and workmanship; thus, it is unable to convey its significance.

P-15-019870/CA-KER-010868H

This site was originally recorded as a historic refuse scatter by ASM Affiliates in 2016 and is composed of a sparse, early-to-mid-twentieth century refuse scatter largely contained within two concentrations. During the current study, the site was found to be unchanged and is as last described. Overall, the site is in poor condition.

Site P-15-019870/CA-KER-010868H was previously recommended not eligible for inclusion on CRHR by ASM Affiliates in 2016 (Carey 2016d). The site lacks integrity of materials, design, feeling, association, and workmanship thus, it is unable to convey its significance.

P-15-020317

This description serves as supplementation to a previously recorded and evaluated segment of P-15-020317 (California State Route 178). The recorded segment measures 2,215 ft. in length and is located between Brown Road and Highway 14 in Sections 29 and 30, T26S/R39E. This segment of California State Route 178, also known as West Inyokern Road, consists entirely of a well-traveled paved road. No historic features associated with the road were identified during the current study.

This segment of P-15-020317 was previously evaluated by Urbana Preservation & Planning, LLC in 2020 (Becker 2020, 2021) and recommended as not eligible for inclusion on the CRHR. Although the construction and early use of California State Route 178 was a key contributor to an important historical event (Criterion 1), this segment lacks integrity of materials, design, feeling, association, and workmanship; thus, it is unable to convey its significance.

4.5.2 Regulatory Setting

Federal

Section 106 of the National Historic Preservation Act (NHPA)

Archaeological resources are protected through the National Historic Preservation Act (NHPA) of 1966, as amended (16 USC 470f), and its implementing regulation, Protection of Historic Properties (36 CFR Part 800), the Archaeological and Historic Preservation Act of 1974, and the Archaeological Resources Protection Act of 1979. Prior to implementing an “undertaking” (e.g., issuing a federal permit), Section 106 of the NHPA requires federal agencies to consider the effects of the undertaking on historic properties and to afford the Advisory Council on Historic Preservation and the State Historic Preservation Officer a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register of Historic Places (National Register). As indicated in Section 101(d)(6)(A) of the NHPA, properties of traditional religious and cultural importance to a tribe are eligible for inclusion in the National Register. Under the NHPA, a resource is considered significant if it meets the National Register listing criteria at 36 CFR 60.4.

National Register of Historic Places

The National Register was established by the NHPA as an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation’s historic resources and to indicate what properties should be considered for protection from destruction or impairment (Code of Federal Regulations [CFR] 36 Section 60.2). The National Register recognizes both historical-period and prehistoric archaeological properties that are significant at the national, state, and local levels. To be eligible for listing in the National Register, a resource must be significant

in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (U.S. Department of the Interior, 1995):

- Are associated with events that have made a significant contribution to the broad patterns of our [U.S.] history;
- Are associated with the lives of persons significant in our [U.S.] past;
- Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for National Register listing (U.S. Department of the Interior, 1995). In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as “the ability of a property to convey its significance” (U.S. Department of the Interior, 1995). The National Register recognizes seven qualities that, in various combinations, define integrity: location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity, a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

State

California Register of Historical Resources

Created in 1992 and implemented in 1998, the California Register of Historical Resources is an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change. Certain properties, including those listed in, or formally determined eligible for listing in, the National Register and CHLs numbered 770 and higher, are automatically included in the California Register. Other properties recognized under the California PHI program, identified as significant in historic resources surveys or designated by local landmarks programs, may be nominated for inclusion in the California Register. A resource (either an individual property or a contributor to a historic district) may be listed in the California Register if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on National Register criteria:

- It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- It is associated with the lives of persons important in our past.

- It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- It has yielded, or may be likely to yield, information important in history or prehistory.

Furthermore, under PRC 5024.1, Title 14 California Code of Regulations [CCR], Section 4852(c), a cultural resource must retain integrity to be considered eligible for the California Register. Specifically, it must retain sufficient character or appearance to be recognizable as a historical resource and convey reasons of significance.

Integrity is evaluated with regard to retention of such factors as location, design, setting, materials, workmanship, feeling, and association. Cultural sites that have been affected by ground disturbing activities, such as farming, often lack integrity because they have been directly damaged or moved from their original location, among other changes.

Typically, an archaeological site in California is recommended eligible for listing in the California Register based on its potential to yield information important in prehistory or history (Criterion 4). Important information includes chronological markers such as projectile point styles or obsidian artifacts that can be subjected to dating methods or undisturbed deposits that retain their stratigraphic integrity. Sites such as these have the ability to address research questions.

California Historical Landmarks

California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource also must be approved for designation by the County Board of Supervisors (or the city or town council in whose jurisdiction it is located); be recommended by the State Historical Resources Commission; and be officially designated by the Director of California State Parks. The specific standards now in use were first applied in the designation of CHL #770. CHLs #770 and above are automatically listed in the California Register. To be eligible for designation as a landmark, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type in the State or within a large geographic region (Northern, Central, or Southern California);
- It is associated with an individual or group having a profound influence on the history of California; or
- It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest (PHI) are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. PHI designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the California Register. No historic resource may be designated as both a landmark and a point. If a point is later granted status as a landmark, the point designation will be retired. In practice, the point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance. To be eligible for designation as a PHI, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type within the local geographic region (city or county);
- It is associated with an individual or group having a profound influence on the history of the local area; or
- It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State and is codified at PRC Section 21000 et seq. CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical or archaeological resources.

Significant cultural resources are those archaeological resources and historical properties that:

- (1) Are associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- (2) Are associated with the lives of persons important in our past;
- (3) Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
- (4) Have yielded, or may be likely to yield, information important in prehistory or history.

Unique resources under CEQA, in slight contrast, are those that represent:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC § 21083.2(g)).

Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. The CEQA Guidelines (Title 14 California Code of Regulations [CCR] Section 15064.5) recognize that an historical resource includes: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register; (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of CEQA Section 21084.1 and CEQA Guidelines Section 15064.5 apply. If a project may cause a substantial adverse change (defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired) in the significance of an historical resource, the lead agency must identify potentially feasible measures to mitigate these effects (CEQA Guidelines Sections 15064.5(b)(1), 15064.5(b)(4)).

If an archaeological site does not meet the historical resource criteria contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of Section 21083, which defines a unique archaeological resource. As defined in CEQA Section 21083.2 a "unique" archaeological resource is an archaeological artifact, object, or site, for which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site is to be treated in accordance with the provisions of Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (Section 21083.2(b)). If preservation in place is not feasible, mitigation measures shall be required.

The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5(c)(4)).

Preservation in place is the preferred approach under CEQA to mitigating impacts to significant or unique cultural resources.

Native American Heritage Commission

PRC Section 5097.91 established the Native American Heritage Commission (NAHC), the duties of which include inventorying places of religious or social significance to Native Americans and identifying known graves and cemeteries of Native Americans on private lands. PRC Section 5097.98 specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

California Public Records Act

Sections 6254(r) and 6254.10 of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public related to “Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission.” Section 6254.10 specifically exempts from disclosure requests for “records that relate to archaeological site information and reports maintained by, or in the possession of, the DPR, the State Historical Resources Commission, the State Lands Commission, the NAHC, another State agency, or a local agency, including the records that the agency obtains through a consultation process between a California Native American tribe and a State or local agency.”

California Health and Safety Code, Sections 7050 and 7052

Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbance must cease and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

California Penal Code, Section 622.5

California Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

Public Resources Code, Section 5097.5

PRC Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

Local

Kern County General Plan

The policies, goals, and implementation measures in the Kern County General Plan for cultural resources applicable to the Project are provided below. The Kern County General Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the Project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Chapter 1: Land Use, Open Space and Conservation Element — 1.10.3: Archaeological, Paleontological, Cultural, and Historical Preservation

Policy 25: The County will promote the preservation of cultural and historic resources that provide ties with the past and constitute a heritage value to residents and visitors.

Measure K: Coordinate with the California State University, Bakersfield's Archaeology Inventory Center.

- Measure L: The County shall address archaeological and historical resources for discretionary projects in accordance with CEQA.
- Measure M: In areas of known paleontological resources, the County should address the preservation of these resources where feasible.
- Measure N: The County shall develop a list of Native American organizations and individuals who desire to be notified of proposed discretionary projects. This notification will be accomplished through the established procedures for discretionary projects and CEQA documents.
- Measure O: On a project-specific basis, the County Planning Department shall evaluate the necessity for the involvement of a qualified Native American monitor for grading or other construction activities on discretionary projects that are subject to a CEQA document.

All policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Inyokern Specific Plan

The Land Use, Open Space, and Conservation Element of the Inyokern Specific Plan has the purpose of identifying physical constraints, public, residential, commercial, and industrial facilities as well as cultural and biological resources within the Plan area. The Land Use, Open Space, and Conservation Element has been adopted as part of the Kern County General Plan. This element of the Inyokern Specific Plan is to supplement the Countywide document.

Land Use, Open Space, and Conservation Element — 1.3: Residential

Policy 9 Protect from development those areas of potential archaeological significance.

Measure 7 Any discretionary industrial development project that substantially disturbs property not previously developed or is not substantially surrounded by urban density development as determined by the Director of the Kern County Department of Planning and Development Services shall require submittal of an archaeological survey or a clearance as part of the application/permit process; said survey shall be completed in accordance with any guidelines supplied by the California Archaeological Inventory at California State University at Bakersfield. Any submittal shall also include mitigation measures satisfactory to the requirements of

said inventory and the Kern County Department of Planning and Development Services.

Land Use, Open Space, and Conservation Element — 1.4: Commercial

Policy 8 Protect from development those areas of potential archaeological significance.

Measure 8 Any discretionary commercial development project that substantially disturbs property not previously developed or is not substantially surrounded by urban density development as determined by the Director of the Kern County Department of Planning and Development Services shall require submittal of an archaeological survey or a clearance as part of the application/permit process; said survey shall be completed in accordance with any guidelines supplied by the California Archaeological Inventory at California State University at Bakersfield. Any submittal shall also include mitigation measures satisfactory to the requirements of said inventory and the Kern County Department of Planning and Development Services.

Land Use, Open Space, and Conservation Element — 1.5: Industrial

Goal 3 To promote economic strength without detriment to environmental quality.

Policy 8 Protect from development those areas of potential archaeological significance.

Measure 7 Any discretionary industrial development project that substantially disturbs property not previously developed or is not substantially surrounded by urban density development as determined by the Director of the Kern County Department of Planning and Development Services shall require submittal of an archaeological survey or a clearance as part of the application/permit process; said survey shall be completed in accordance with any guidelines supplied by the California Archaeological Inventory at California State University at Bakersfield. Any submittal shall also include mitigation measures satisfactory to the requirements of said inventory and the Kern County Department of Planning and Development Services.

Land Use, Open Space, and Conservation Element — 1.6: Resource

Goal 1 To provide for development which does not impair the economic potential of the area, while not diminishing the other amenities which exist within the community.

Measure 3 Areas with potential archaeological resources shall be evaluated prior to the approval of discretionary land development permits. Specific mitigation measures shall be incorporated into development proposals.

All policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

4.5.3 Impacts and Mitigation Measures

Methodology

The proposed Project's potential impacts to cultural resources have been evaluated using a variety of resources. To evaluate the Project's potential effects on significant archaeological and historic built environment resources, a cultural resources study for the Project site was conducted, which included archival research and field survey (ASM, 2026). Using the aforementioned resources and professional judgment, impacts were analyzed according to CEQA significance criteria described below.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could potentially have a significant adverse effect on cultural resources if it would:

- (a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5;
- (b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5; or
- (c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Section 21083.2(g) of CEQA further defines “unique archaeological resource” for purposes of determination as to whether a project may have a significant effect on archaeological resources. As used in this section “unique archaeological resource” means an archaeological artifact, object, or site about which it can be demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information required to answer important scientific research questions and that there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available of its type; or

- Is directly associated with a scientifically recognized important pre-Contact or historic event or person.

According to the CEQA Guidelines, Section 15064.5(b), a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. The CEQA Guidelines further state that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or adversely alter those physical characteristics of a historical resource that convey its historical significance and qualify it for inclusion in the CRHR or in a local register or survey that meet the requirements of PRC Sections 5020.1(k) and 5024.1(g).

Project Impacts

Impact 4.5-1: Would the Project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.

Construction

As noted in this section, a survey of six (6) previously recorded resources were successfully located and updated, all on the Project site. These consist of site P-15-002050/CA-KER-002050H, a segment of the SPRR; P-15-019864/CA-KER-010862H, a historic refuse scatter and fence line; P-15-019867/CA-KER-010865H, a historic refuse scatter; P-15-019869/CA-KER-010867H, a historic refuse scatter with earthen features; P-15-019870/CA-KER-010868H, a historic refuse scatter; and P-15-020317, a segment of California State Route 178. One resource was found to be entirely outside of the Project Site and excluded from investigation. No new archaeological sites or historic properties were discovered within the Project Site.

All these sites have been disturbed, mainly in the form of modern refuse dumping. Some sites have also been affected by modern road construction and off-highway vehicle trails, with trash pits dug on at least one site. The sites contain materials dating from early-to-mid-twentieth century mixed with more recent (including contemporary) debris and contain a mixture of domestic and fragmented construction remains. Further, the concentration of these sites on the edge of Inyokern reflects casual and illicit trash dumping, most likely by local residents. This pattern of dumping appears to have started by about 1920. Based on artifacts and refuse observed on the sites, it has continued into contemporary/modern times. The result is a series of mixed-age refuse dumps, none of which have an associative context. All previously identified resources are historic in age, lack integrity, and are recommended not eligible for inclusion on the CRHR.

Operation

Once construction is complete, the Project would not involve further ground-disturbing activities that could affect previously unidentified historic resources. Operational activities would be confined to the developed Project footprint. No operational impacts to historical resources are anticipated.

Mitigation Measures: Implementation of MM 4.5-1, MM 4.5-2, and MM 4.5-3 would be required. (see Section 4.5.4).

Level of Significance: With the implementation of the stated mitigation measures, impacts would be *less than significant*.

Impact 4.5-2: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5.

Impacts to Native American tribal artifacts were evaluated. According to Meyer et al. (2010), the Project Site exists on a geological landform that is Moderately High for archaeological deposits with Moderate potential for buried sites. However, although the proposed Project is located almost entirely within undeveloped land, the disturbed context and land-use history suggest that the potential for intact buried archaeological deposits being encountered during construction is low.

Overall, given the local geomorphic setting, mapped soils, and observed disturbance, the potential for buried cultural resources and tribal cultural resources was assessed as low. This assessment informed field methods by confirming the need for a surface-only survey with no targeted subsurface testing.

Construction

As noted in this section, a survey of six (6) previously recorded resources were successfully located and updated, all on the Project site. No new archaeological resources were discovered within the Project Site.

Operation

Once construction is complete, the Project would not involve further ground-disturbing activities that could affect previously unidentified archaeological or historic resources. Operational activities would be confined to the developed Project footprint. No operational impacts to archeological resources are anticipated

Mitigation Measures: Implementation of MM 4.5-1, MM 4.5-2, and MM 4.5-3 would be required. (see Section 4.5.4).

Level of Significance: With the implementation of the stated mitigation measures, impacts would be *less than significant*.

Impact 4.5-3: Would the Project disturb any human remains, including those interred outside of dedicated cemeteries.

Construction

As noted in this section, no human remains, including those interred outside of dedicated cemeteries, were discovered within the Project Site. MM 4.5-4 details the protocol for the discovery of human remains during construction, grading or other ground disturbing activities.

Operation

No operational activities would involve ground disturbance. No operational impacts to human remains are anticipated.

Mitigation Measures: Implementation of MM 4.5-4 would be required. (see Section 4.5.4).

Level of Significance: With the implementation of the stated mitigation measure, impacts would be *less than significant*.

Table 4.5-A — CEC SPPE Appendix B (g)(2) Compliance Cross-Reference

Setting Requirements — Appendix B (g)(2)(A) through (g)(2)(C)			
Ref.	Appendix B Requirement	Section / Table	Status
(g)(2)(A)	Identify prehistoric and historic archaeological sites within the project area	§4.5.1.4; Tables 4.5-1, 4.5-2	✓ Addressed
(g)(2)(B)	Records search and review of prior surveys within APE	§4.5.1.4; Tables 4.5-3, 4.5-4	✓ Addressed

(g)(2)(C)(i)	Intensive Phase I field survey of project site	§4.5.1.4 (Field Survey)	✓ Addressed
(g)(2)(C)(ii)	Significance evaluations for resources identified	§4.5.1.4 (Previously Recorded Resources)	✓ Addressed
(g)(2)(C)(iii)	DPR forms for all resources documented/updated	Appendix M.2	✓ Addressed
Impact and Disclosure Requirements — Appendix B (g)(2)(D) through (g)(2)(F)			
(g)(2)(D)	Assessment of potential for buried cultural and tribal cultural resources	§4.5.1.2 (Buried Resources)	✓ Addressed
(g)(2)(E)	NAHC Sacred Lands File consultation; Native American tribal consultation (SB 18, AB 52)	§4.5.5.1	✓ Addressed
(g)(2)(F)	Mitigation measures for significant resources	§4.5.4 (MM 4.5-1 through MM 4.5-4)	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(2). All criteria addressed in this chapter; full technical disclosure in Phase I Survey of the Inyokern Data Center Project (Cultural Resources Report) (filed as a supporting exhibit to this Application).

4.5.4 Mitigation Measures

MM 4.5-1: The Applicant shall retain a Lead Archaeologist, defined as an archaeologist meeting the Secretary of the Interior’s Standards for professional archaeology (U.S. Department of the Interior, 2011), to carry out all mitigation measures related to archaeological and historical resources. The contact information for this Lead Archaeologist shall be provided to the Kern County Planning and Natural Resources Department prior to the commencement of any construction activities on-site. Further, the Lead Archaeologist shall be responsible for ensuring the following employee training provisions are implemented during implementation of the Project:

- a. Prior to commencement of any ground disturbing activities, the Lead Archaeologist in consultation with the Native American monitor(s) shall develop a Cultural Resources Sensitivity Training for all personnel working on the proposed Project. A Cultural Resources Sensitivity Training Guide approved by the Lead Archaeologist shall be provided and discussed with all

personnel. A copy of the Cultural Resources Sensitivity Training Guide shall be submitted to the Kern County Planning and Natural Resources Department. The training guide may be presented in video form.

- b. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the Lead Archaeologist and/or Native American monitor(s) for further evaluation and action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of archaeological resources.
- c. A copy of the Cultural Resources Sensitivity Training Guide/Materials shall be kept on-site and available for all personnel to review and be familiar with as necessary. It is the responsibility of the Project Owner to ensure all employees receive appropriate training before the work onsite.

MM 4.5-2: During implementation of the Project, the services of Native American Tribal Monitor(s) working under the supervision of the Lead Archaeologist, as identified through consultation with appropriate Native American tribes, shall be retained by the Applicant to monitor ground-disturbing activities associated with Project-related construction activities, as follows:

- a. All initial excavation and ground-disturbing activities within the Project site shall be monitored, given the potential for alluvial burial of archaeological resources.
- b. The Lead Archaeologist, archaeological monitors, and Native American monitors shall be provided all Project documentation related to cultural resources within the Project site prior to commencement of ground disturbance activities. Project documentation shall include, but not be limited to, previous cultural studies, surveys, maps, drawings, etc. Any modifications or updates to Project documentation, including construction plans and schedules, shall immediately be provided to the Lead Archaeologist, archaeological monitor, and Native American monitor.
- c. The archaeological monitor(s) shall keep monitoring logs and the Lead Archaeologist shall submit monthly written updates to the Kern County Planning and Natural Resources Department. After monitoring has been completed, the Lead Archaeologist shall prepare a monitoring report detailing the results of monitoring, which shall be submitted to the Kern County Planning and Natural Resources Department, California Energy Commission and to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.

MM 4.5-3: During implementation of the Project, in the event archaeological materials are encountered during the course of grading or construction, the project contractor shall cease any ground disturbing activities within 50 feet of the find. The area of the discovery shall be marked off by temporary fencing that encloses a 50-foot radius from the location of discovery. Signs shall be posted that establish it as an Environmentally Sensitive Area and all entrance to the area shall be avoided until the discovery is assessed by the Lead Archaeologist, as well as the Native American monitor if the discovery involves resources of interest to Native American tribes, including but not limited to prehistoric archaeological sites or tribal cultural resources. The Lead Archaeologist in consultation with the Native American monitor, if appropriate, shall evaluate the significance of the resources and recommend appropriate treatment measures. If further treatment of the discovery is necessary, the Environmentally Sensitive Area shall remain in place until all work is completed. Per California Environmental Quality Act Guidelines Section 15126.4(b)(3), Project redesign and preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with California Environmental Quality Act Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the Lead Archaeologist in consultation with the Native American monitor shall develop additional treatment measures in consultation with the County, which may include data recovery or other appropriate measures. The County shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature. Archaeological materials recovered during any investigation shall be curated at an accredited curation facility. The Lead Archaeologist, in consultation with a designated Native American monitor, shall prepare a report documenting evaluation and/or additional treatment of the resource. A copy of the report shall be provided to the Kern County Planning and Natural Resources Department, California Energy Commission and to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.

MM 4.5-4 If human remains are uncovered during Project construction, the project contractor shall immediately halt work within 100 feet of the find, contact the Kern County Coroner to evaluate the remains, notify the Kern County Planning and Natural Resources Department and California Energy Commission and follow the procedures and protocols set forth in of the California Environmental Quality Act Guidelines Section 15064.5(e). If the County Coroner determines that the remains are Native American, the coroner shall contact the Native American Heritage Commission, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code (PRC) Section 5097.98 (as amended by Assembly Bill 2641). The Native American Heritage Commission shall designate a Most Likely Descendent for the remains per PRC Section 5097.98. Per PRC Section 5097.98, and in accordance with generally accepted cultural or archeological standards or practices, the landowner shall ensure that the immediate

vicinity of the Native American human remains is not damaged or disturbed by further development activity until the consultations have been completed with the most likely descendent regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. If the remains are determined to be neither of forensic value to the Coroner, nor of Native American origin, provisions of the California Health and Safety Code (Section 7100 et. seq.) directing identification of the next-of-kin will apply.

4.5.4 CEC SPPE Appendix B — Additional Cultural Resources Disclosure Requirements

This section provides the additional cultural resources disclosure information required by CEC SPPE Appendix B, Section (g)(2). This information supplements the CEQA impact analysis provided in Sections 4.5.1 through 4.5.4 above. Appendix B, Section (g)(2), requires identification of cultural and tribal cultural resources, records searches, field surveys, significance evaluations, NAHC consultation, and applicable mitigation measures. Each of these requirements is addressed below.

Native American Consultation — Appendix B (g)(2)(E)

Consultation with Native American tribes was conducted pursuant to Senate Bill (SB) 18 and Assembly Bill (AB) 52. A request for a Sacred Lands File (SLF) search was submitted to the Native American Heritage Commission (NAHC) on December 22, 2025, and a follow-up request was submitted on January 23, 2026. The NAHC responded on March 16, 2026; the results were negative for Tribal Cultural Resources and sacred sites. A copy of the Applicant's NAHC request letter and the NAHC response letter are included in Appendix M.1. Upon receipt of the NAHC contact list, tribal outreach letters were transmitted on March 18, 2026 to all tribes identified by the NAHC, including the Kern Valley Indian Community, Tejon Indian Tribe, Tubatulabals of Kern Valley, and Tule River Indian Tribe. Each notification letter included a project description and project location map, consistent with Appendix B(g)(2)(D)(ii). Copies of all outgoing notification letters are included in Appendix M.1. As of the date of this Application, no written or oral responses have been received from any of the notified tribes. No oral responses requiring written summary have been received. If responses are received prior to or during CEC staff review, they will be provided as a supplement to this Application.

Cultural Resources Report — Appendix B (g)(2)(C)

The full Phase I Survey of the Inyokern Data Center Project (Cultural Resources Report), prepared by ASM Affiliates (March 2026, PN 30430.35), including DPR recordation forms for all resources documented or updated during the field survey, is filed as Appendix M.2 to this Application, consistent with Appendix B(g)(2)(C)(iii) and the California Public Records Act (Government Code Sections 6254(r) and 6254.10), which protect the precise location of archaeological and cultural sites from public disclosure. The Cultural Resources Report conforms to the

Archaeological Resource Management Report (ARMR) format prescribed by the California Office of Historic Preservation (February 1990), as required by Appendix B(g)(2)(C).

Cultural Resources Specialists — Appendix B (g)(2)(C)(v)

The cultural resources investigation was conducted by ASM Affiliates, of Bakersfield, California. Michael Lenzi, MA, RPA, served as Principal Investigator. Robert Azpitarte, MA, served as Associate Archaeologist and Field Director, and Margarita Medina Lemus, BA, provided field assistance. Ashlee Younie, MA, RPA, served as Senior Archaeologist and contributing report author. All personnel responsible for literature searches, surveys, and preparation of the Cultural Resources Report meet the Secretary of the Interior's Professional Standards for archaeology (36 CFR Part 61). Full resumes and qualification statements for each specialist are provided in the Cultural Resources Report (Appendix M.2), consistent with Appendix B(g)(2)(C)(v).

4.5.6 Cumulative Setting, Impacts and Mitigation Measures

The cumulative analysis area for cultural resources encompasses the Indian Wells Valley and surrounding Mojave Desert region of eastern Kern County, including areas where past, present, and reasonably foreseeable future development projects may disturb ground and potentially affect archaeological, historical, or tribal cultural resources. See Appendix N.3 (Cumulative Projects and Cumulative Impacts Analysis) for the full list of past, present, and reasonably foreseeable projects considered in the cumulative cultural resources analysis.

Ground disturbance associated with development in the region has the potential to cumulatively affect the documented record of cultural resources in the Indian Wells Valley. However, each development project in Kern County that involves ground disturbance is subject to CEQA review, which requires identification of cultural resources and implementation of appropriate measures to reduce or avoid significant impacts. The proposed Project's incremental contribution to cumulative cultural resource impacts would not be considerable given the low density of intact resources identified within the Project Site, the absence of CRHR-eligible resources, and the implementation of MM 4.5-1 through MM 4.5-4, which ensure that any unanticipated discoveries are handled appropriately.

MM 4.5-1 through MM 4.5-4 ensure that Project-level impacts are reduced to less than significant and do not contribute to any cumulative impacts of unknown regional ground disturbance activities. The Project is consistent with the goals and policies of the Kern County General Plan and the Inyokern Specific Plan related to cultural resource protection.

Mitigation Measures: Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-4 would be required.

Level of Significance: *Less than significant.*

4.6 ENERGY

Introduction

This section of the Application describes the existing energy setting and regulatory framework applicable to the Project and evaluates the potential energy-related impacts associated with construction, operation, and maintenance of the proposed Inyokern Data Center (RBIDC). This section also identifies Project design features, compliance measures, and mitigation measures that would avoid or reduce energy-related impacts, where applicable.

The proposed Project's potential energy-related impacts have been evaluated using relevant information from the Project Description, Site Plan (Appendix A.1), the Generator Data & Specifications (Appendix A.3), the Air Quality Impact & GHG Analysis (Appendix F.1), the Trip Generation Report (Appendix H.1), the Economic, Socioeconomic, Environmental Justice, and Growth-Inducing Impact Analysis (Appendix J.2), the Project One-Line Drawing (Appendix L.1), the POI Location map (Appendix L.2), the Substation One-Line drawing (Appendix L.3), the LORS Compliance Matrix (Appendix N.2), Cumulative Projects & Cumulative Impacts Analysis (Appendix N.3), the Environmental Sustainability Plan and Best Management Practices report (Appendix O.3) and other published and background resources.

This section provides the content and analysis required by Public Resources Code Section 21100(b)(3) and described in CEQA Guidelines Appendix F. Public Resources Code Section 21100(b)(3) requires that an environmental impact report include "a description of measures proposed to reduce wasteful, inefficient, and unnecessary consumption of energy." CEQA Guidelines Appendix F provides guidance on the energy resources analysis that should be completed in an EIR, including discussion of the energy implications of a Project's energy consumption by fuel type, efficiency, and relationship to broader energy plans.

In late 2018, the California Natural Resources Agency finalized updates to the 2018 CEQA Guidelines (California Natural Resources Agency, 2018). Appendix G was updated to include energy as its own environmental topic area (Section VI, Energy) and included as a separate stand-alone environmental issue area. Two potential impact criteria are identified, relating to wasteful, inefficient, or unnecessary consumption of energy resources; and conflict with or obstruction of applicable plans for renewable energy or energy efficiency.

This section also addresses the applicable energy information requirements set forth in the California Energy Commission (CEC) Appendix B for a Small Power Plant Exemption (SPPE) application, including the engineering efficiency and reliability requirements of Appendix B §(h)(4) and the Laws, Ordinances, Regulations, and Standards (LORS) compliance requirements of Appendix B §(i). All Appendix B Section (h) and (i) requirements are addressed in Section 4.6.5 of this chapter.

Items that remain subject to finalization during detailed engineering are identified in highlighted text throughout this section and are consolidated in Section 4.6.5.11.

CEC SPPE Appendix B — Section (h) and (i) Applicability

This section addresses the applicable energy information requirements of California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, as follows:

Section (h) — Engineering: Efficiency and Reliability Information. Requires a description of the proposed facility’s energy efficiency measures, heat and mass balance by operating mode, annual fuel consumption, annual electricity generation, annual operating hours by design condition, and an evaluation of alternative generating technologies.

Section (i) — Compliance with Laws, Ordinances, Regulations, and Standards (LORS). Requires a compliance matrix identifying all applicable laws and regulations, agency contact information, and a permit schedule for all non-CEC permits.

All Section (h) and (i) requirements are addressed in this chapter. Section (b)(2)(E) (MOS/SIA), (b)(2)(B–C) (transmission route and photographic simulation), and (b)(1)(B) (scale drawings) are also addressed — see Section 4.6.5.1, Appendix A.2, and Appendix L.1–L.3. The CEQA analysis is provided in Sections 4.6.3 and 4.6.6. The Appendix B engineering and LORS supplement is provided in Section 4.6.5.

4.6.1 Environmental Setting

4.6.1.1 Regional Energy Setting

Electricity

The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear power. Electricity is generated in power plants and distributed to users through a network of transmission lines and distribution systems. The California Independent System Operator (CAISO) is responsible for managing the flow of electricity across the high-voltage, long-distance power lines that make up the transmission grid, and operates one of the largest power grids in the world.

According to the CEC, in 2024 total system electric generation (TSEG) for California was 278,338 gigawatt-hours (GWh), down 1 percent (2,802 GWh) from 2023. TSEG represents both in-state generation and net electricity imported from the Pacific Northwest and Southwest, representing total available electricity supply to California consumers. In 2024, in-state generation from non-GHG emitting and renewable resources (nuclear, large hydro, biomass, geothermal, small hydro, solar, and wind) accounted for 59.77 percent of all in-state electricity generated. Including imports, these resources represented 62.23 percent of California’s total electricity mix.

Table 4.6-1: 2024 Total System Electric Generation

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	Total California Energy Mix (GWh)	Total California Power Mix
Coal	263	0.12%	124	5,775	5,899	6,162	2.21%
Natural Gas	86,479	40.00%	84	8,091	8,176	94,655	34.01%
Oil	36	0.02%	-	0	0	36	0.01%
Other (Waste Heat/Petroleum Coke)	198	0.09%	13	9	22	220	0.08%
Unspecified	-	0.00%	80	3,971	4,051	4,051	1.46%
Total Thermal and Unspecified	86,976	40.23%	301	17,846	18,147	105,123	37.77%
Nuclear	18,379	8.50%	208	9,026	9,234	27,613	9.92%
Large Hydro	25,222	11.67%	4,479	1,079	5,558	30,780	11.06%
Biomass	4,754	2.20%	614	26	640	5,394	1.94%
Geothermal	10,453	4.84%	212	2,139	2,351	12,803	4.60%
Small Hydro	3,969	1.84%	269	2	270	4,240	1.52%
Solar	50,666	23.44%	536	8,081	8,616	59,283	21.30%
Wind	15,761	7.29%	9,195	8,145	17,341	33,102	11.89%
Total Non-GHG and Renewable Resources	129,205	59.77%	15,512	28,498	44,010	173,215	62.23%
Total Energy	216,181	100.00%	15,813	46,344	62,157	278,338	100.00%

Source: California Energy Commission, 2024 Total System Electric Generation data.

SCE Product Content Label (2024, Preliminary)

Electrical services in the Project area are provided by Southern California Edison (SCE). SCE obtains its energy supplies from power plants and natural gas fields throughout California, the Pacific Northwest, and the Desert Southwest. SCE owns and operates over 1.2 million miles of distribution lines and 22,000 circuit miles of transmission lines.

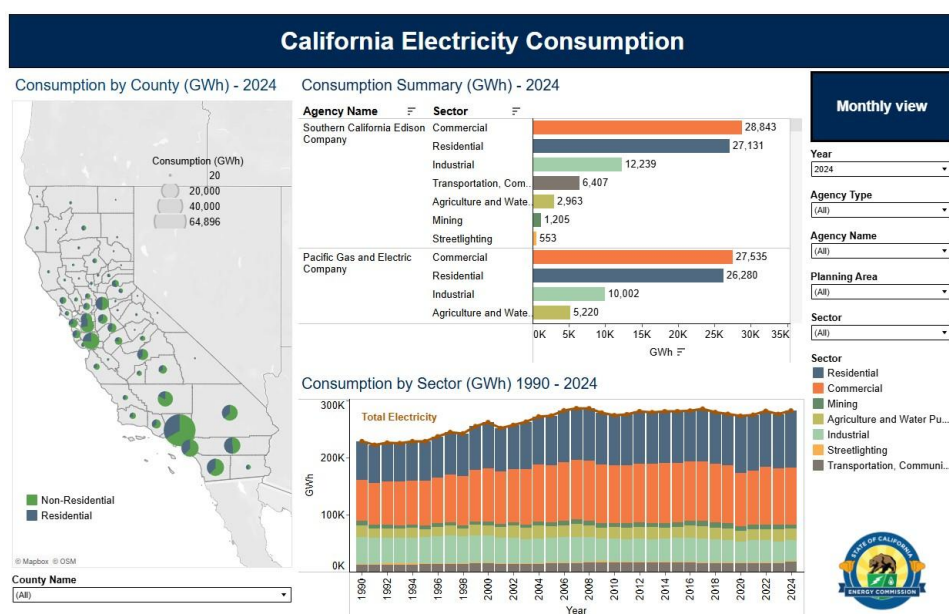
Based on early 2024 reporting, Southern California Edison (SCE) continues to transition its portfolio, featuring a power mix driven significantly by renewable energy sources. SCE's 2024 Power Content Label reflects an energy mix with approximately 39 percent renewables (including solar, wind, geothermal, and biomass), approximately 22 percent large hydroelectric, approximately 8 percent nuclear, and the balance from natural gas and unspecified sources. Actual

figures are subject to final annual reporting by SCE and the California Public Utilities Commission.

California Electricity Consumption Dashboard

The California Electricity Consumption dashboard illustrates the state's historical electricity consumption by agency, sector, and county. Data is sourced from the CEC's Electricity Consumption by County database. The most recent data available shows Kern County as one of the state's largest energy consumers on a per-capita basis, reflecting the county's significant industrial, oil and gas, and agricultural sectors.

Figure 4.6-1: CEC California Electricity Consumption Dashboard
CEC California Electricity Consumption Dashboard – SCE/Kern County (2024)



Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from in-state production, which accounts for a small fraction of total use, and from interstate pipelines that bring gas from the Rocky Mountain region, the Southwest, and Canada. Natural gas is used for space and water heating, industrial processes, electricity generation, and as a transportation fuel. In California, natural gas remains a significant component of electricity generation and building energy use, though its share has been declining as renewable energy and electrification expand.

Transportation

According to the CEC, in 2024 California's transportation sector continued to be a major energy consumer, with approximately 13.4 billion gallons of gasoline sold and approximately 3.5 billion gallons of diesel fuel sold.

- Gasoline Consumption (2024): 13.4 billion gallons of taxable gasoline were sold in 2024, down slightly from 13.57 billion in 2023.
- Diesel Consumption (2024): Approximately 3.5 billion gallons of diesel fuel were sold, fueling heavy-duty trucks, buses, and equipment.
- Transportation Energy Shift: Transportation fuel (gasoline/diesel) currently dominates, but electric vehicle (EV) adoption is shifting energy consumption to electricity, consistent with California's policy objectives under Executive Order N-79-20 and the Advanced Clean Cars program.
- Context: California is the second-largest total energy consumer in the U.S. after Texas.

Note that specific TWh or MMBtu (total energy unit) figures for the entire 2024 calendar year are often finalized in the following year's CEC reports (e.g., the Integrated Energy Policy Report). Figures presented here reflect preliminary 2024 data available as of the preparation of this document.

According to California Energy Commission (CEC) data from 2023, on-road motor vehicles in Kern County consumed approximately 1.1 billion gallons of gasoline and diesel fuel annually. Kern County's transportation energy profile reflects its geographic extent, significant freight and agricultural activity, and dispersed population centers connected by state highways and interstates.

4.6.1.2 Project Energy Setting

The Project Site is located near U.S. Highway 395 (US 395) and State Route 178 (SR-178) in Inyokern, an unincorporated part of Kern County, California. The Project site consists of four parcels (APNs 084-010-43, 084-010-44, 084-010-45, and 084-010-48) totaling approximately 50 acres, zoned Medium Industrial (M-2) in unincorporated Kern County.

The proposed Project is a hyperscale data center campus designed to achieve greater than 99.982 percent availability at the critical power tier, supported by redundant utility service and on-site emergency backup generation. The facility includes six modular data halls (11.67 MW each; scalable build-out), with rack densities ranging from 10 kW to 50 kW to accommodate high-performance computing (HPC) and general enterprise workloads. The primary data center building encompasses approximately 220,686 square feet of data center space and 17,325 square feet of office space, for a total building footprint of approximately 238,011 square feet.

The Project includes roof top and car port on-site solar PV (1 MW-DC) systems which are estimated to generate approximately 2,015 MWh/year, providing a partial offset to non-IT utility consumption.

Building heights range from 16 feet to 22 feet as shown on the Conceptual Site Plan (Appendix A.1), consistent with the 35-foot maximum height limit within Kern County Airport Land Use Compatibility Plan Zone C for the Inyokern Airport. The project's maximum design envelope is 30 feet above finished grade, providing clearance below both the ALUCP Zone C limit and the FAR Part 77 horizontal surface. The site includes 155 parking spaces. Construction of the RBIDC is anticipated to begin in 2027, following receipt of required permits and entitlements. The total construction duration is estimated at approximately 48 months. Initial commissioning activities are anticipated to begin as temporary electrical service becomes available. SCE is evaluating the feasibility of providing up to 20 MW of temporary electrical service by mid-2028 to support initial commissioning activities. Full 99 MW permanent electrical service is anticipated from 2029 onward per SCE MOS174. The facility is designed to serve a 99 MW IT load at full operations.

MOS174 provides for 99 MW of permanent electrical service via a dedicated 115 kV interconnection, with SCE evaluating 20 MW of temporary construction service (mid-2028) per MOS174.

The conceptual design basis targets a Power Usage Effectiveness (PUE) of 1.41 at full buildout (ranging from 1.41 across development phases as IT load density increases). PUE is defined as the ratio of total facility power draw to IT server equipment power draw ($PUE = \text{Total Facility Source Energy} / \text{IT Source Energy}$). A lower PUE value indicates greater energy efficiency. Non-IT overhead loads include mechanical cooling systems, electrical distribution losses, lighting, and ancillary facility systems.

Table 4.6-2 summarizes the facility energy load and PUE targets.

Table 4.6-2: Phased Energy Load and PUE Summary

Phase	Total Facility Load (MW)	IT Load (MW)	Non-IT Load (MW)	Target PUE
Phase 1	49	35	14	1.40
Phase 2	94	70	24	1.34
Phase 3 – Full Buildout	99	70	29	1.41

Source: Conceptual Basis of Design, Conceptual ROM Inyokern. Figures are design basis targets subject to update as engineering advances.

Note that Phase 3 PUE (1.41) is higher than Phase 2 PUE (1.34) despite IT load remaining constant at 70 MW across both phases. The increase reflects 5 MW of additional non-IT infrastructure loads (cooling, electrical distribution, and facility systems) that come fully online at campus full buildout but are not required during Phase 2 partial occupancy. Non-IT load increases from 24 MW (Phase 2) to 29 MW (Phase 3); the additional overhead reduces facility-level efficiency relative to the Phase 2 optimized partial-load configuration.

The Project has secured up to 99 MW of utility electrical service from Southern California Edison (SCE), which defines the maximum design capacity of the emergency backup generating facility. The Project has coordinated with SCE regarding electrical service configuration and the point of interconnection (POI). Under normal operating conditions the campus would be supplied entirely

by SCE utility power. On-site diesel backup generators would operate only during confirmed utility outages or for limited testing and maintenance, and would not participate in demand response, peak shaving, or grid-support operations.

Table 4.6-3 provides a summary energy flow from the utility supply through campus distribution to end loads. This table satisfies Appendix B §(b)(1)(C) requirements for a description of all systems.

Table 4.6-3: Campus Energy Flow Summary

System Level	Description	Capacity / Load
SCE Utility Supply	115 kV interconnect; two (2) 115 kV subtransmission lines (Route 1: ~8,000 LF / 34 structures; Route 2: ~4,000 LF / 14 structures) per SCE MOS174	Up to 99 MW (full buildout)
On-Site Substation	2 × 60/80/100 MVA step-down transformers (115 kV → 34.6 kV) with LTC; 2N utility redundancy (per Major Mechanical and Electrical Equipment List Rev. 0, item 9)	200 MVA aggregate nameplate (2 × 100 MVA at max rated)
Medium-Voltage Ring Bus	34.5 kV ring with sectionalizing breakers; dual switchgear lineups	Distributes load to MER packages
UPS Systems (A/B)	11 × 6 MVA modules per side (N+1); 15-min battery bridge; static bypass	~66 MVA per bus side
IT Load	Compute, storage, networking equipment in data halls	35–70 MW (Phase 1–3)
Non-IT / Mechanical Load	Cooling, lighting, house loads, power distribution losses	14–29 MW (Phase 1–3)
System Level	Description	Capacity / Load
On-Site Solar PV (planned)	Rooftop and parking canopy PV; offsets non-IT loads; no IT load service	Capacity TBD – final engineering
Emergency Backup Generators	2 yards × 20 × 3 MW diesel gensets; emergency and testing only; no grid export	~120 MW nameplate; operates on outage/test only

The Project’s Sustainability Plan and Best Management Practices

The Project’s design, construction and operational components have been evaluated utilizing the RESET Standard. As indicated in the discussion covering mitigation measures, the Project intends to apply the RESET platform as a performance-based sustainability framework to provide continuous, real-time operational data. The Project’s Environmental Sustainability Plan and Best Management Practices (Appendix O.1) and this Section 4.6, prepared for the Project by RESET and Valley Wide Engineering & Construction, Inc., consists of a consolidated analysis covering the RESET Standard’s integration with California Building Codes, Data Center Sustainability and Regulatory Alignment, and Benchmarking Performance Against Global Industry Frameworks.

While standards like LEED or ASHRAE 90.4 often rely on point-in-time and projected modeled performance, the RESET platform and certification is directly tied to verifiable, longitudinal records of actual performance. This makes RESET a unique tool for satisfying the “continuous energy monitoring” documentation required by Title 24, other performance based metrics and standards, and commitments for greater transparency, accountability, and reporting.

Table 4.6-13: Comparison of RESET vs. Industry and Regulatory Standards

Standard / Framework	Similarities to RESET	Key Differences from RESET
LEED (Gold/Platinum)	Both are global green building frameworks focused on environmental impact and sustainability.	Design vs. Performance: LEED is design-based (point-scoring for intent); RESET is performance-based (continuous data).
California Title 24 (Energy Code)	Both mandate/encourage continuous energy monitoring and granular sub-metering.	Mandatory vs. Voluntary: Title 24 is a mandatory state law; RESET is a voluntary certification used to verify compliance.
ISO/IEC 30134 Series (PUE, WUE, CUE)	RESET adopts these standardized international methodologies for calculating PUE, WUE, and CUE.	Metric vs. Audit: ISO defines the metric calculation; RESET provides the third-party auditing and the RESET Cloud platform.
ENERGY STAR (Portfolio Manager)	Both evaluate facility efficiency using IT load and total energy data.	Annual vs. Granular: ENERGY STAR provides an annual 1–100 score; RESET requires 15-minute interval data streams.
ASHRAE 90.4 & TC 9.9	Both focus on mechanical efficiency (MLC/ELC) and the thermal envelope for IT equipment.	Design Target vs. Operation: ASHRAE sets the technical "floor" or design targets; RESET verifies actual operational performance.
Uptime Institute (Tier I–IV) & TIA-942	Both are used to classify and benchmark data center facility infrastructure.	Resilience vs. Sustainability: Uptime/TIA focus on reliability and availability; RESET focuses strictly on sustainability and health.
CARB & Local AQMD Rules	Both address emissions (NO _x , PM, CO) from stationary backup generators.	Regulation vs. Monitoring: CARB/AQMD set legal limits; RESET Pro Air provides the continuous monitoring to prove adherence to those limits.

Standard / Framework	Similarities to RESET	Key Differences from RESET
EPEAT & IEEE 1680.4	Both track the environmental lifecycle and circularity of IT hardware and servers.	Hardware Label vs. Facility Metric: EPEAT is a product label; RESET Embodied tracks the total mass and carbon of hardware refresh cycles.
ISO 50001 (Energy Management)	Both establish frameworks for ongoing monitoring and continual energy improvement.	Management System vs. Technical Standard: ISO 50001 is a management process; RESET is a technical standard requiring specific hardware and data auditing.

Project Compliance with Energy Efficiency Standards

As discussed in detail in the Project’s Environmental Sustainability Plan and Best Management Practices (Appendix O.1), each of the Project’s design and systems components discussed below will meet or exceed the energy efficiency standards identified in **Table 4.6-14** through **Table 4.6-21**

The Project will include forty (40) 3 MW Caterpillar 3516E diesel gensets with 120 MW gross nameplate (N+2). The Project’s diesel generators are intended to use renewable diesel (R99/R100) as the primary fuel source when available, and include ultra-low sulfur diesel (ULSD) as an alternative backup fuel source; both managed in 24–72 hour on-site fuel storage. The Project’s diesel fuels are expected to reduce Scope 1 GHG emissions and generate LCFS credits. Fuel selection and management for the Project’s diesel fuels are discussed in the below table.

Table 4.6-14: Diesel Fuels

Standard / Framework	Description
ISCC (International Sustainability & Carbon Certification)	Globally recognized scheme certifying renewable fuels against sustainability and GHG-savings criteria. ISCC EU is recognized under the EU Renewable Energy Directive (RED III); ISCC PLUS covers voluntary markets including North America. Verifies chain of custody from feedstock to final product.
RSB (Roundtable on Sustainable Biomaterials)	The other leading sustainability certification, considered best-in-class by WWF and IUCN. RSB Global Fuels Certification applies worldwide; RSB EU RED certification meets EU regulatory requirements.

Standard / Framework	Description
ASTM D975	Standard Specification for Diesel Fuel Oils — renewable diesel (R99/R100) meets D975 and is a direct petrodiesel substitute. Biodiesel blends meet D975 only up to B5; above that they fall under D7467 (B6–B20).
ASTM D6751	Standard for B100 biodiesel blend stock quality.
BQ-9000	U.S. voluntary quality management program for biodiesel producers, marketers, and distributors. Managed by the National Biodiesel Accreditation Commission. Covers storage, sampling, testing, distribution, and fuel management.
EPA Renewable Fuel Standard (RFS)	Federal program that defines what qualifies as a renewable fuel, assigns RIN (Renewable Identification Number) credits, and sets annual volume obligations. Governs the underlying fuel market.
EPA 40 CFR 60 Subpart IIII	New Source Performance Standards for stationary compression-ignition engines (diesel). Defines Tier requirements for emergency standby engines.
CARB Renewable Diesel Mandate (Off-Road Regulation, §2449)	Since January 1, 2024, all California fleets subject to the In-Use Off-Road Diesel-Fueled Fleets Regulation must use R99 or R100 renewable diesel. Exemptions exist for fleets composed entirely of Tier 4 Final off-road engines, MY2010+ on-road engines, or ZEVs, and for captive attainment area fleets. Record-keeping of purchase date and volume is required for three years.
CARB Tier 4 Final (Stationary CI Engines)	Consistent with California's stationary engine rules, implemented through local AQMDs, the Project will achieve Tier 4 final equivalent emissions per NFPA 110 TIA 22-1 with external SCR+DPF aftertreatment. Particulate matter and NOx are the key pollutants targeted.
LCFS (Low Carbon Fuel Standard)	CARB program that assigns carbon intensity (CI) values to fuels and generates credits for low-CI fuels like renewable diesel, biodiesel, RNG, and hydrogen. Operators using renewable fuels in on-site generation may be able to generate LCFS credits, improving project economics.
Eastern Kern Air Pollution Control District (EKAPCD), Rule 425 and 427; Rule 202 Guidelines	Rule 425 (Stationary Gas Turbines): Applies to turbines > 0.88 MW. It sets NOx limits, requires continuous emissions monitoring (CEMS), and mandates 5 years of record retention. Recent 2024/2025 updates (approved June 2025) address EPA-identified deficiencies, setting lower NOX limits (down to 20 ppmv for certain units).

Standard / Framework	Description
	Rule 427 (Stationary Piston Engines): Defines a stationary piston engine as any spark or compression-ignited reciprocating internal combustion engine attached to a foundation or operated at the same site for over one year. Emergency Engines: Emergency standby engines are typically required to meet strict emission standards and recordkeeping (often hours per year) and usually must adhere to 17 CCR § 93115, California's Airborne Toxic Control Measure (ATCM). Permitting: Stationary sources, including engine operators, must obtain an Authority to Construct (ATC) and follow Rule 202 guidelines. Criteria pollutants: EKAPCD-specific thresholds (e.g., 137 lbs/day for NOx, VOC, PM10). Compare to modeled emissions from Section A.5 Tier 4 Final specs to ensure emissions remain below the EKAPCD significance thresholds.
CARB Portable Equipment Registration Program (PERP)	Required for portable/temporary generators in California; they must use certified engines and meet equipment labeling rules.
Pending Tier 5 (CARB)	CARB workshops began February 2026 to develop Tier 5 standards targeting roughly a 90% further reduction in NOx vs. Tier 4 Final. Facilities planned now for 2027–2029 occupancy should anticipate Tier 5 as the future minimum.

The Project will incorporate best-in-class energy efficiency assessment and monitoring from conceptual to final design and construction as discussed in the below table.

Table 4.6-15: Energy Efficiency Assessment and Monitoring

Standard / Framework	Description
EU Code of Conduct — Best Practices Guidelines	The gold standard BMP catalog. Contains hundreds of specific practices across IT, cooling, power, environmental controls, and monitoring, each with an "expected minimum" and "optimal" practice level. Used globally even outside Europe.
The Green Grid — Data Center Maturity Model (DCMM)	Self-assessment tool covering facility and IT in five categories (Power, Cooling, Compute, Storage, Network) across five maturity levels. Useful for identifying where a site sits vs. industry leaders.
ISO/IEC 30134 Series	Key Performance Indicators for data center resource effectiveness. Includes PUE (30134-2), Renewable Energy Factor (30134-3), IT Equipment Energy

Standard / Framework	Description
	Efficiency (30134-4), IT Equipment Utilization (30134-5), Energy Reuse Factor (30134-6), and Cooling Efficiency Ratio (30134-7).
ISO 50001 — Energy Management Systems	Framework for establishing an ongoing energy management program. Requires baseline measurement, targets, action plans, and continual improvement. Certifiable and commonly held by large operators.
Uptime Institute M&O Stamp of Approval	Operational sustainability assessment covering staffing, training, preventive maintenance, planning, coordination, and operating conditions — the operational half of resilience.
ENERGY STAR for Data Centers (Portfolio Manager)	Whole-building 1–100 score based on measured source energy and IT load. Facilities scoring 75+ are eligible for ENERGY STAR certification. Good proxy for BMP effectiveness.

The Project incorporates monitoring of energy efficiency metrics against Title 23 and SB 57 reporting requirements, in addition to PUE and WUE operating metrics. The Project’s Best Management Practices anticipates compliance with both pending state legislation such as AB 222 and expected requirements of regulatory agencies as discussed in the below table.

Table 4.6-16: Energy Efficiency Monitoring and Reporting

Standard / Framework	What It Covers / When to Apply
Title 24 Acceptance Testing & Commissioning	2025 code requires formal acceptance testing of regulated systems by ATTCP-certified technicians before occupancy — effectively mandating commissioning as a BMP. Ongoing energy monitoring documentation is also required.
SB 57 (Chapter 647, 2025)	Signed October 2025. Directs the CPUC to assess how new data center loads shift costs to other ratepayers, with findings due January 1, 2027. Does not currently impose operational BMPs but is expected to shape future reporting and tariff design.
AB 222 (pending)	Proposed legislation that would require annual reporting to the CEC on energy consumption, PUE, renewable energy share, and AI-model training energy use. Passed Assembly but held in Senate; may return in 2026.

Standard / Framework	What It Covers / When to Apply
Water Efficiency BMPs	No statewide data center water mandate yet, but local water agencies increasingly require WUE disclosure and water-efficient cooling system design (e.g., closed-loop, adiabatic, dry coolers) during the permit process, especially in drought-impacted regions.
AB 93 (vetoed 2025) For Reference Only	Would have required water-use disclosure before permit approval. Vetoed by Governor Newsom, but water BMPs remain under active legislative focus.

The Project incorporates energy efficiency effectiveness benchmarks to reduce energy usage and meet both industry and regulatory standards. The Project’s metrics include the following as referenced in **Table 4.6-17** and incorporated by reference in MM 4.6-1:

Power Usage Effectiveness (PUE): The Project’s design targets PUE 1.41. ISO/IEC 30134-2:2026 is the updated, global standard for measuring Power Usage Effectiveness (PUE) in data centers, quantifying energy efficiency as the ratio of total facility power to IT equipment power. Released in early 2026, this second edition improves upon previous standards with stricter requirements for mixed-use buildings and enhanced energy documentation. PUE targets vary significantly by climate zone and cooling topology; while liquid-cooled facilities in cold climates may target 1.20, highly resilient (Tier IV) hybrid-cooled facilities in desert climates (California Title 24 Climate Zone 14, high desert; ASHRAE 169 Climate Zone 3B) typically target 1.30–1.45. PUE-based design and monitoring helps manage, optimize, and reduce non-IT energy use like cooling and lighting.

Water Usage Effectiveness (WUE): The Project’s design targets a WUE range of 0.1–0.3 L/kWh, based on its Closed-Loop Chilled Water design. A WUE factor of <0.1 L/kWh is the industry leading standard. ISO/IEC 30134-9:2022 defines Water Usage Effectiveness (WUE) as a key performance indicator (KPI) for measuring the water efficiency of data centers, specifically quantifying water used for cooling and operation relative to IT equipment energy consumption. WUE is calculated as the ratio of annual site water usage (liters) to the energy consumed by IT equipment (kWh), expressed as liters per kilowatt-hour. For comparison, water free chilled water systems rate a WUE factor of 0.0 L/kWh and WUE range of 0.5–2.0 L/kWh for Evaporative / Adiabatic chilled water systems depending on climate factors.

Carbon Use Effectiveness (CUE): The Project’s design targets a CUE factor of <0.1 kgCO_{2e}/kWh ITE with renewable Solar PV PPA coverage. ISO/IEC 30134-8:2022 defines Carbon Usage Effectiveness (CUE) as a key performance indicator (KPI) for measuring the CO₂ emissions of a data center relative to its energy consumption. Published in March 2022, it helps operators quantify and report the environmental impact of their operations, with lower CUE values indicating better performance.

Renewable Energy Factor (REF): The Project’s design targets a REF factor of 75+ per the ENERGY STAR Portfolio Manager and in accordance with ISO/IEC 30134-3:2016, as amended by ISO/IEC 30134-3:2015/Amd. 1:2018, defines the Renewable Energy Factor (REF) for data centers, providing a standardized methodology to calculate, measure, and report the proportion of energy derived from renewable sources. It is a key performance indicator (KPI) that enables data centers to evaluate sustainability and demonstrate compliance with environmental targets, often used with on-site or procured renewable energy. REF is defined as the ratio of renewable energy consumed to the total data center energy used. REF is often used in conjunction with reporting tools, such as the ENERGY STAR Portfolio Manager, which may have their own performance thresholds (e.g., a score of 75 or higher for top efficiency)

Energy Reuse Factor (ERF / ERE): The Project’s design targets a ERF/ERE factor range of 0 to 0.10 as calculated under ISO/IEC 30134-6:2021, is a key performance indicator (KPI) for data centers that measures the ratio of energy reused outside the data center boundary to the total energy consumed. ERF promotes sustainability by incentivizing the recovery of waste heat for external applications, such as district heating. ERF is calculated as the reused energy divided by total energy consumed. Note that ISO/IEC 30134-6 does not mandate specific numerical targets but provides the standardized method for measuring ERF to support the reduction of carbon footprints through waste heat exploitation

ENERGY STAR Score (1–100): The Project’s design targets an ENERGY STAR score of 75+. The ENERGY STAR score is a 1–100 percentile ranking for commercial and industrial buildings that measures energy efficiency compared to similar buildings nationwide, adjusted for climate and operations. A score of 50 indicates median performance, while 75 or higher indicates top-tier performance eligible for certification.

Table 4.6-17: Energy Efficiency Effectiveness Benchmarks

Standard / Framework	Description
PUE (ISO/IEC 30134-2:2026)	Power Usage Effectiveness — total facility power divided by IT equipment power. The 2026 revision standardizes calculation methodology and reporting boundaries for auditability.
WUE (ISO/IEC 30134-9)	Water Usage Effectiveness — liters per kWh of IT energy. Increasingly important as cooling technology and location selection are scrutinized for water impact.
CUE (ISO/IEC 30134-8)	Carbon Usage Effectiveness — kg CO ₂ e per kWh of IT energy. Tied to grid carbon intensity and on-site generation.
REF (ISO/IEC 30134-3)	Renewable Energy Factor — share of total energy from renewable sources, with specific accounting rules for PPAs, on-site generation, and certificates.

Standard / Framework	Description
ERF / ERE (ISO/IEC 30134-6)	Energy Reuse Factor / Effectiveness — credits waste-heat recovery sent to district heating, adjacent buildings, or industrial processes.
ENERGY STAR Score (1–100)	EPA Portfolio Manager rating for whole facility. 75+ required for certification.

The Project’s hybrid cooling tower + water-cooled chiller design with free-cooling coils is well-suited to the Mojave Desert climate and supports the stated PUE target range discussed above. Additionally, Project’s direct liquid cooling via CDUs provisions the facility for 40–50 kW racks consistent with HPC/AI workload requirements and IT readiness standards. The mechanical and cooling system standards with which the Project will comply are presented in **Table 4.6-18:**

Table 4.6-18: Mechanical and Cooling Systems

Standard / Framework	What It Covers / When to Apply
ASHRAE 90.4 MLC	Mechanical Load Component — sum of cooling, fan, pump, and heat rejection design power divided by IT design power, with climate-zone-specific maximums. This is the enforceable design benchmark for cooling efficiency under U.S. codes.
AHRI Certification (Chillers, DX, CRAH/CRAC)	Air-Conditioning, Heating and Refrigeration Institute third-party performance certification. AHRI 550/590 for chillers (IPLV, NPLV), AHRI 340/360 for unitary AC, AHRI 1360 for computer room air handlers.
ASHRAE 90.1 Chiller Efficiency Minimums	Minimum IPLV/EER/COP values for air- and water-cooled chillers referenced by Title 24 and 90.4.
CTI Certification (Cooling Towers)	Cooling Technology Institute thermal performance certification — required for many permit applications.

The Project involves an aggregate IT load of approximately 70 MW, a rack density of 10–50 kW which supports HPC/AI workloads, and a maximum 99 MW capacity as confirmed by the Project’s SCE interconnection commitment per MOS174. The Project’s compliance with Tier III/IV design criteria and N+2 generator redundancy support the Project’s >99.982% availability objective.

The Project’s electrical design is based on the standards described in the below **Table 4.6-19** and the specification of key components are presented in **Table 4.6-20**.

Table 4.6-19: Electrical Systems and Power Train

Standard / Framework	Description
ASHRAE 90.4 ELC	Electrical Loss Component — worst-case losses across UPS and ITE distribution segments (the incoming service segment was removed in recent addenda). Sets the floor for electrical design efficiency.
DOE 10 CFR Part 431 (Transformers)	Federal distribution transformer efficiency standards. Low-voltage dry-type transformers must meet DOE 2016 levels; medium-voltage standards also apply. NEMA TP-1 is the earlier reference.
ENERGY STAR for UPS	Efficiency tiers across load levels (25%, 50%, 75%, 100%). Because redundant data center UPS typically operates at lower loads, the flattened efficiency curve of ENERGY STAR-listed units materially improves real-world performance.
ENERGY STAR for Servers	Idle and active-state efficiency requirements. Version 4.0 covers enterprise servers with tiered requirements by configuration.
ENERGY STAR for Data Center Storage	Covers online and near-online storage products against a workload-based efficiency benchmark.
SPEC SERT	Server Efficiency Rating Tool — standardized workload benchmark (used by ENERGY STAR for Servers) that measures performance per watt across CPU, memory, and storage-bound workloads.
SNIA Emerald	Storage Networking Industry Association efficiency benchmark for storage systems. The reference methodology behind ENERGY STAR storage.
80 PLUS (Power Supplies)	Efficiency certification for internal server PSUs: Bronze, Silver, Gold, Platinum, Titanium levels. Titanium-rated PSUs are typical for modern hyperscale builds.
IEEE 1680.4	Environmental assessment standard for servers, used in the EPEAT registry alongside EPEAT Server criteria.

The Project will include equipment and electrical systems that meet the following specifications presented in **Table 4.6-20**.

Table 4.6-20: Major Electrical and IT Component Specifications

UPS Efficiency (eco-mode / bypass)	98–99% (with power quality tradeoffs)
Transformer Efficiency (DOE 2016, @35% load)	98.8% for 500 kVA dry-type; 99.3% for 2500 kVA
Power Factor — Utility Interface	>0.95 lagging (often required by tariff); 0.99 with power factor correction
Server Power Supply (PSU)	80 PLUS Titanium: 90%/94%/96%/91% at 10%/20%/50%/100% load
Distribution Voltage (hyperscale)	415/240 V (380/220 V IEC) direct to rack reduces step-downs vs. 480V
DC Distribution (where used)	380 VDC from rectifier direct to server — eliminates inverter losses
Server Active Efficiency (ENERGY STAR)	Varies by configuration; SPEC SERT score $\geq$ Tier requirements by server class
Server Idle Power	ENERGY STAR caps idle by server class; target <20% of active for modern servers
Storage Efficiency (SNIA Emerald)	IOPS/W and TB/W benchmarks — varies by workload class
Server Utilization	Target >40% average; hyperscale aggregation achieves >60%; enterprise often <20%
Virtualization Consolidation	>10:1 VM-to-host typical; >20:1 with modern hardware
Hardware Refresh Cycle	3–5 years for servers to keep efficiency gains current with silicon generation

Embodied Carbon — Server	~1,500–2,500 kgCO ₂ e per typical 2U rack server (includes manufacturing)

The Project will comply with Title 24 and 20 and the Project’s compliance modeling and reporting will meet the requirements set forth in the below **Table 4.6-21**.

Table 4.6-21: California Title 24 and Title 20 Compliance

Standard / Framework	Description
Title 24 Prescriptive Requirements	Includes specific mandates for economizer operation, fan power limits (W per CFM), hot/cold aisle containment where applicable, variable-speed fan control, and differential pressure-based airflow control. Applies to new construction, additions, and alterations affecting cooling systems.
Title 24 Performance Path (CBECC-Com)	The Project will undertake whole-building energy modeling in CEC-approved software to evaluate whether total modeled energy meets or exceeds a prescriptive baseline.
Ongoing Energy Monitoring	Title 24 mandates continuous energy monitoring documentation for data centers. Sub-metering of IT vs. mechanical vs. electrical loads is effectively required to demonstrate compliance.
Appliance Efficiency Regulations (Title 20)	California has state-level appliance efficiency standards that in some cases exceed federal DOE minimums for transformers, motors, and other components commonly used in data centers.

4.6.2 Regulatory Setting

Federal

The overarching federal laws and regulations specifically related to energy conservation are in flux. In March 2025, the current administration announced that Executive Order 14030 (Climate-Related Financial Risk), Executive Order 14057 (Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability), Executive Order 14082 (Implementation of the Energy and Infrastructure Provisions of the Inflation Reduction Act of 2022), and 94 additional executive orders were revoked.

Federal Clean Air Act

The federal Clean Air Act (CAA), as amended, is the primary federal law that governs air quality nationwide. The CAA was enacted in 1963 and has been amended numerous times, with major changes occurring in 1970 and 1990. The CAA establishes the National Ambient Air Quality Standards (NAAQS) for criteria pollutants, requires states to develop State Implementation Plans (SIPs) to achieve and maintain air quality standards, and regulates stationary and mobile source emissions.

On December 7, 2009, the administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA (40 Code of Federal Regulations [CFR] 1):

- **Endangerment Finding:** The administrator found that the current and projected concentrations of the six key well-mixed GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) in the atmosphere threaten the public health and welfare of current and future generations.

However, on February 12, 2026 the EPA finalized the rescission of the 2009 Greenhouse Gas Endangerment Finding, determining it lacks authority under the Clean Air Act to regulate GHG as an air pollutant, specifically finding that GHG emissions do not endanger public health or welfare, and ending the EPA's foundation for GHG regulation of stationary and mobile sources.

- **Cause or Contribute Finding:** The administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

Note that on February 12, 2026, the EPA also finalized the rescission of the 2009 Greenhouse Gas Endangerment Finding and the related "cause-or-contribute" finding for new motor vehicles and motor vehicle engines. This repeal is expected to prompt multiple legal challenges, with litigation taking months or years to resolve, and could have sweeping implications if upheld. The legal status of the Endangerment Finding remains in flux.

While the repeal narrows federal regulatory obligations, it does not eliminate state-level authority to regulate GHG emissions under state law, subject to longstanding EPA waivers and California's independent authority under Health and Safety Code Section 43018.

National Energy Act of 1978

The National Energy Act of 1978 included the Public Utility Regulatory Policies Act (Public Law 95-617), Energy Tax Act (Public Law 95-318), National Energy Conservation Policy Act (Public Law 95-619), Powerplant and Industrial Fuel Use Act (Public Law 95-620), and Natural Gas Policy Act (Public Law 95-621). These laws were enacted to promote energy conservation and develop domestic energy resources in response to the energy crises of the 1970s.

Energy Policy Act of 2005

The Energy Policy Act of 2005, implemented by the U.S. Department of Energy, was intended to establish a comprehensive, long-term energy policy. The Energy Policy Act of 2005 provided tax incentives to increase energy efficiency, promote conservation, and encourage greater use of alternative fuels and renewable energy sources, including wind, solar, and biomass.

Energy Independence and Security Act of 2007

Signed into law in December 2007, the Energy Independence and Security Act was passed to increase the production of clean renewable fuels; increase the efficiency of products, buildings, and vehicles; promote research on and deploy greenhouse gas capture and storage options; and improve the energy performance of the Federal government.

Executive Orders

There are several federal executive orders (EOs) related to energy production, renewable energy, and energy reduction.

- EO 13834: Efficient Federal Operations. EO 13834 designates a federal chief sustainability officer to head an Office of Federal Sustainability along with chief sustainability officers in federal agencies. The executive order also directs federal agencies to pursue energy and water efficiency through high-performance federal buildings.
- EO 14154: Unleashing American Energy. EO 14154 declares a national energy emergency per the National Emergencies Act. Under this pretense, EO 14154 directs agencies to expand energy production of all kinds (fossil fuels, renewables, nuclear) and to streamline permitting and reduce regulatory barriers to energy development.
- EO 14156: Declaring a National Energy Emergency. EO 14156 directs the heads of executive departments and agencies to identify and exercise any lawful emergency authorities available to them to facilitate the identification, leasing, siting, production, transportation, refining, and generation of domestic energy resources, including oil, natural gas, coal, hydropower, biofuels, critical minerals, and nuclear energy.
- EO 14260: Protecting American Energy from State Overreach. EO 14260 aims to remove what the administration characterizes as “illegitimate impediments to the identification, development, siting, production, and delivery of domestic energy resources” by directing the U.S. Attorney General to review and take appropriate action against state and local laws that may hinder domestic energy production or transmission.
- EO 14261: Reinvigorating America’s Beautiful Clean Coal Industry and Amending Executive Order 14241. EO 14261 mandates the chair of the National Energy Dominance Council to coordinate with executive departments and agencies on a national coal strategy to leverage American coal resources to meet domestic and international energy needs.

- EO 14262: Strengthening the Reliability and Security of the United States Electric Grid. During periods when the relevant grid operator forecasts that a temporary supply emergency may exist, EO 14262 directs the Secretary of Energy to exercise emergency authority under Section 202(c) of the Federal Power Act to keep reliable generating units, which may include coal and gas units, operational.

Corporate Average Fuel Economy Standards

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. CAFE standards are corporate average standards, which require each automobile manufacturer to achieve an average fuel economy for all automobiles in a given model year.

The NHTSA and EPA set the Corporate Average Fuel Economy Standards (CAFE) standards to improve the average fuel economy and reduce GHGs generated by cars and light trucks. For model year (MY) 2027, the standards require an average fuel economy of 50.4 MPG for passenger cars and 37.5 MPG for light trucks. NHTSA is currently developing future MY CAFE standards.

Medium- and Heavy-Duty Vehicle Program

EPA and NHTSA set fuel efficiency and GHG standards for medium- and heavy-duty trucks. In 2011, EPA and NHTSA finalized a joint rule that established a national program to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses for MY 2014 through 2018 (Phase 1). EPA's Phase 2 heavy-duty vehicle fuel efficiency rule was published in 2016 and covers MY 2021 through 2027 trucks and engines. EPA's Phase 3 rule covering MY 2027 and beyond was published in 2024.

Construction Equipment Emission Standards

The Code of Federal Regulations established tiered emissions standards for construction equipment (i.e., nonroad diesel engines) to phase in cleaner-burning equipment in the construction, agricultural, industrial, and mining industries. Construction equipment emissions standards are set by Tier (1, 2, 3, and 4) and engine horsepower. Tier 4 standards require a 90 percent reduction in NO_x and PM emissions compared to Tier 3. Tier 4 Final requirements became effective between 2012 and 2015, depending on engine power category.

Public Law No. 119-15

On June 12, 2025, Public Law 119-15, enacting House Joint Resolution 87, was signed into law. The law utilized the Congressional Review Act to nullify EPA's rule titled "Multi-Pollutant Emission Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles" (89 Fed. Reg. 27842, April 18, 2024). This rule had established stricter emissions standards for light- and medium-duty vehicles for model years 2027 and later.

Public Law No. 119-16

Similarly on June 12, 2025, Public Law No. 119-16, enacting House Joint Resolution 88, became law. The law also relied on the Congressional Review Act to void the EPA’s rule titled “Phase 3 Greenhouse Gas Emission Standards for Heavy-Duty Vehicles” (89 Fed. Reg. 29440, April 22, 2024). This rule had established greenhouse gas emission standards for heavy-duty vehicles for model year 2027 and beyond.

State

The State of California has adopted several laws addressing various aspects of energy production, energy conservation, energy efficiency, and renewable energy. This section describes the major state laws and regulations directly applicable to the Project.

Additional air quality and climate change laws, regulations, plans, and policies affecting the energy sector are reviewed in Section 4.3, “Air Quality,” and Section 4.4, “Greenhouse Gas Emissions.”

California GHG Reduction Targets

The State has passed legislation that establishes a broad framework for the long-term GHG reduction and climate change adaptation programs. The following bills represent key legislation that drives energy sector policy in California:

- Assembly Bill (AB) 32, Health and Safety Code Section 38500 et seq. AB 32 codified the 2020 reduction target of EO S-03-05 (i.e., by 2020, reach the GHG emission levels of 1990). AB 32 required CARB to develop a scoping plan that identifies specific GHG reduction measures to meet the 2020 GHG reduction targets.
- Senate Bill (SB) 32, Health and Safety Code Section 38566. SB 32 codified the 2030 reduction target of EO B-30-15 (i.e., by 2030, reach statewide GHG emission levels that are 40 percent below the 1990 level).
- AB 1279, The California Climate Crisis Act, Health and Safety Code Section 38562.2. On September 16, 2022, the State legislature passed AB 1279, which codified the target from the Governor’s Executive Order N-79-20 for the state to achieve net zero carbon emissions no later than 2045 and to achieve and maintain carbon neutrality on or before 2045.
- AB 32 Scoping Plan. The AB 32 Scoping Plan identifies specific measures to reduce GHG emissions to 1990 levels by 2020 and requires CARB and other state agencies to incorporate GHG reduction measures into existing regulatory frameworks.
- 2017 Scoping Plan. The 2017 Scoping Plan represents the state’s roadmap to achieving long-term GHG reduction target of SB 32. Because energy is one of the state’s largest GHG-emitting sectors, the 2017 Scoping Plan includes numerous energy-related measures covering building electrification, appliance efficiency, and electricity generation.

- 2022 Scoping Plan for Achieving Carbon Neutrality. CARB adopted the Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) on December 16, 2022. The 2022 Scoping Plan identifies strategies for California to achieve carbon neutrality no later than 2045, including accelerated decarbonization of the electricity sector, buildings, and transportation.
- California State Priority Climate Action Plan. California's State Priority Climate Action Plan (PCAP) was developed to achieve GHG reductions across the geographic extent of all federal lands in California. Administered by CalEPA, the PCAP was formally submitted to the U.S. EPA as required under the Inflation Reduction Act.

Transportation Planning

SB 375, Chapter 728, Statutes of 2008. SB 375 provides for a new planning process that integrates regional transportation, land use, GHG reduction, and housing planning to reduce GHG emissions through more sustainable land use and transportation planning.

Fuel Economy Standards and Electric Vehicles

- EO N-79-20. Signed by Governor Newsom on September 23, 2020, EO N-79-20 requires 100 percent of in-state sales of passenger cars and trucks are ZEVs by 2035; 100 percent ZEV sales for medium-duty trucks are required by 2045; and 100 percent ZEV sales for heavy-duty vehicles and off-road equipment are required by 2035, with some exceptions.
- Advanced Clean Cars Program (passenger vehicles). AB 1493 of 2002 (known as Pavley I, Chapter 200, Statutes of 2002) provided the nation's first GHG standards for passenger vehicles, requiring manufacturers to reduce GHG emissions from new vehicles sold in California, beginning with the 2009 model year. In 2012, CARB adopted the Advanced Clean Cars (ACC) program, which combined Pavley II GHG standards, ZEV regulation, and the Low Emission Vehicle III (LEV III) regulations into a single coordinated package of requirements for model years 2015 through 2025.
- Low Carbon Fuel Standard. The Low Carbon Fuel Standard (LCFS) originally mandated that a statewide goal be established to reduce the carbon intensity of California's transportation fuels. CARB adopted the current LCFS regulation in April 2009 (13 CCR, Section 95480 et seq.) requiring that providers of transportation fuels sold in California reduce the carbon intensity of those fuels by 10 percent by 2020, and 20 percent by 2030.
- Medium- and heavy-duty vehicles. In 2008, CARB approved the Phase 1 Tractor-Trailer Greenhouse Gas Regulation to reduce GHG emissions by requiring the use of aerodynamic equipment and low-rolling resistance tires on new and existing tractor-trailers (13 CCR, Sections 2025 through 2025.16). In 2020, CARB adopted the Advanced Clean Trucks (ACT) regulation, requiring manufacturers of Class 2b through 8 trucks to ramp up sales of zero-emission vehicles to ultimately reach 55 percent of truck sales by 2035.

- Advanced Clean Fleets. CARB’s 2022 Advanced Clean Fleets regulation was developed to reduce diesel particulate matter through the transition of medium- and heavy-duty fleets to zero-emission vehicles on an accelerated schedule. The regulation applies to high-priority fleets, federal government fleets, and state and local government fleets beginning in 2024.
- AB 126. Approved by the Governor on October 7, 2023, AB 126 includes provisions to provide, upon appropriation by the legislature, funding in the form of grants for the purchase or lease of zero-emission vehicles.

Renewable Energy

- Renewables Portfolio Standard. SB 1078 (Sher 2002) established California’s Renewables Portfolio Standard (RPS). The program sets continuously escalating renewable energy targets for California’s investor-owned utilities (IOUs), publicly owned utilities (POUs), electric service providers (ESPs), and community choice aggregators (CCAs).
- SB 350 (Chapter 547, Statutes of 2015). SB 350 established the 2030 targets for the RPS: (1) an RPS of 50 percent and (2) a doubling of efficiency for existing buildings by 2030. SB 350 also required CPUC to establish long-term renewable energy procurement plans.
- SB 100 (Chapter 312, Statutes of 2018). This bill establishes a new RPS target of 50 percent by 2026, increases the RPS target in 2030 from 50 to 60 percent, and requires that by December 31, 2045, all retail electricity sales in California come from renewable and zero-carbon resources.
- SB 1020 (Chapter 361, Statutes of 2022). This bill superseded the goals of SB 100 by requiring that 90 percent of all retail sales of electricity to California end-use customers be served by renewable and zero-carbon resources by 2035.

Building Efficiency

California Building Energy Efficiency Standards

The energy consumption of new residential and nonresidential buildings in California is regulated by the California Energy Code’s Building Energy Efficiency Standards (Title 24, Part 6). These standards are updated on approximately a three-year cycle by the CEC, with each update intended to improve efficiency from the previous cycle. The most recent update to the Title 24, Part 6 standards is the 2025 Energy Code, which became effective January 1, 2026.

California Green Building Standards Code

California has adopted the Green Building Standards Code (CALGreen) (24 CCR Part 11), which identifies both mandatory and voluntary best practices for construction of residential and nonresidential buildings. CALGreen is updated every three years and is designed to improve public health, safety, and general welfare by enhancing design and construction of buildings through the

use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices.

AB 130

AB 130 of 2025 imposes a moratorium on changes to California building codes affecting residential units, including both state and local amendments, through 2031.

California Energy Commission

Warren-Alquist Act. The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as CEC. The act empowers the CEC to conduct energy resource planning and forecasting, certify power plants over 50 MW, develop and update energy efficiency standards, and lead programs for renewable energy and emerging energy technologies.

Integrated Energy Policy Report: SB 1389 (Chapter 568, Statutes of 2002) required CEC to “conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices.” The 2025 Integrated Energy Policy Report discusses the California Energy Demand Forecast, accelerating interconnection and energization, California’s progress toward the load-shift goal, and advancing clean and renewable hydrogen for electricity and transportation. It also includes appendices on Clean Transportation Program benefits, firm zero-carbon resources, and fossil gas price forecasts.

State of California Energy Action Plan: The CEC is responsible for preparing the state energy plan, which identifies emerging trends related to energy supply, demand, and conservation in California and recommends actions to address these trends.

California Energy Efficiency Action Plan: The CEC updates its plan to increase energy efficiency in existing buildings every three years. The most recent update (2025 Triennial Plan) addresses buildings, transportation, industry, and agriculture.

California Air Resources Board

CARB’s Advanced Clean Car Program. The Advanced Clean Cars emissions-control program was approved by CARB in 2012 and is closely associated with the Pavley regulations. The current ACC program combines the Low Emission Vehicle III (LEV III) air quality standards and the Zero Emission Vehicle (ZEV) regulation into a single coordinated package for the 2015 through 2025 model years. It includes a provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025.

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants from heavy-duty diesel-fueled trucks.

Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles

In addition to limiting exhaust from idling trucks, in 2008, CARB approved the Truck and Bus Regulation to reduce NOX, PM10, and PM2.5 emissions from existing diesel vehicles operating in California (13 CCR, Section 2025). The phased regulation aims to reduce emissions from diesel trucks and buses by requiring owners to upgrade their fleets to meet current emissions standards. CARB also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) such as bulldozers, loaders, backhoes and forklift trucks (In-Use Off-Road Diesel-Fueled Fleets Regulation [13 CCR Section 2449]). These standards are phased-in based on equipment horsepower.

While the goals of these measures are primarily to reduce public health impacts from diesel emissions, compliance with the regulation has shown an increase in energy efficiency for diesel-powered equipment in California, as the reduction measures require advanced combustion technologies.

Local

Kern County General Plan

The goals, policies, and implementation measures in the Energy Element of the Kern County General Plan applicable to energy, as related to the Project, are provided below.

Chapter 5: Energy Element; 5.4.5: Solar Energy Development

Goal 1	Encourage safe and orderly commercial solar development.
Policy 1	The County shall encourage domestic and commercial solar energy uses to conserve fossil fuels and improve air quality.
Policy 3	The County should permit solar energy development in the desert and valley planning regions that does not pose significant environmental or public health and safety hazards.
Measure A	The County shall continue to maintain, and update as necessary, provisions in the Kern County Zoning Ordinance to provide adequate development standards for commercial solar energy development.

- Measure B The County should work with affected State and federal agencies and interest groups to establish consistent policies for solar energy development.

Chapter 5: Energy Element; 5.4.7: Transmission Lines

- Goal 1 To encourage the safe and orderly development of transmission lines to access Kern County's electrical resources along routes, which minimize potential adverse environmental effects.
- Policy 1 The County should encourage the development and upgrading of transmission lines and associated facilities (e.g., substations) as needed to serve Kern County's residents and access the County's generating resources, insofar as transmission lines do not create significant environmental or public health and safety hazards.
- Policy 2 The County shall review all proposed transmission lines and their alignments for conformity with the Land Use, Conservation, and Open Space Element of this General Plan.
- Policy 3 In reviewing proposals for new transmission lines and/or capacity, the County should assert a preference for upgrade of existing lines and use of existing corridors where feasible.
- Policy 4 The County should work with other agencies in establishing routes for proposed transmission lines. The County should discourage the siting of above-ground transmission lines in visually sensitive areas.
- Policy 5 The County should discourage the siting of above-ground transmission lines in visually sensitive areas.
- Measure A The County should monitor the supply and demand of electrical transmission capacity locally and statewide.
- Measure B The County shall continue to maintain provisions in the Zoning Ordinance and update as necessary to provide for transmission line development.

All policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Inyokern Specific Plan

The entire Project site is subject to the provisions of the Inyokern Specific Plan, which contains goals, policies, and standards that are compatible with those of the Kern County General Plan but are specific to the Inyokern area.

Land Use, Open Space, and Conservation Element; Resource (1.6); Relating to PV Solar System

- Goal 1 To provide for development which does not impair the economic potential of the area, while not diminishing the other amenities which exist within the community.

- Policy 5 Encourage development of alternative energy sources by tailoring County zoning and subdivision ordinances and building standards to reflect Alternative Energy Guidelines published by the California State Energy Commission.

Land Use, Open Space, and Conservation Element, 1.1: Physical Constraints; Relating to Seismic and Fire Code aspects of energy infrastructure

- Policy 1 Zoning and other land use controls will be used to regulate, and prohibit, if necessary, future development when physical hazards exist.
- Policy 4 Kern County building, health, and fire codes and standards shall be strictly enforced to minimize the possibility of hazards relevant to certain physical constraints.
- Measure 4 All structural development must conform to the Uniform Building Code, as administered by Kern County, to provide an adequate level of protection from earthquake damage.

Seismic Safety and Safety Element; Relating to Seismic and Fire Code aspects of energy infrastructure

- Goal 1 To ensure the safety of the area residents from environmentally related hazards.
- Policy 2 Development shall consider seismic hazards during new construction and include adequate safety measures.
- Measure 1 All construction shall comply with the requirements of the Uniform Building Code (UBC) and the Uniform Fire Code (UFC) with regard to water supply, fire flow, and construction standards.
- Measure 3 All construction shall comply with the standard of the UBC with regard to seismic hazard.

In respect to CEC Appendix B LORS compliance review in section 4.6.2, the Seismic Safety and Safety Elements of the Specific Plan is relevant because the Project's energy infrastructure (generators, fuel tanks, substation) is directly subject to those seismic and fire code requirements. The intent was to ensure the LORS coverage in 4.6 reflects that, rather than relying solely on the incorporated by reference catch all. The UBC/CBC note was added to head off a likely reviewer question on the legacy SP language.

Measure 1 and 3 are more fully discussed in Section 4.7, Geology, Soils, and Paleontological Resources, of this Application. Note that the Specific Plan's references to the Uniform Building Code (UBC) reflect the legacy language of the adopted Plan; Kern County has since adopted the 2022 California Building Code (CBC) pursuant to Ordinance G-9179, which governs construction standards including seismic requirements, and with which the Project will comply.

All policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

4.6.3 Impacts and Mitigation Measures

Methodology

The proposed Project's potential energy-related impacts have been evaluated using relevant information from the Project Description, Site Plan (Appendix A.1), the Generator Data & Specifications (Appendix A.3), the Air Quality Impact & GHG Analysis (Appendix F.1), the Trip Generation Report (Appendix H.1), the Economic, Socioeconomic, Environmental Justice, and Growth-Inducing Impact Analysis (Appendix J.2), the Project One-Line Drawing (Appendix L.1), the POI Location map (Appendix L.2), the Substation One-Line drawing (Appendix L.3), the LORS Compliance Matrix (Appendix N.2), Cumulative Projects & Cumulative Impacts Analysis (Appendix N.3), the Environmental Sustainability Plan and Best Management Practices report (Appendix O.3) and other published and background resources. Using the aforementioned criteria and professional judgment, the Project's potential energy impacts were analyzed as described below.

Thresholds of Significance

The Project would have a significant adverse effect on energy resources if it would result in potentially significant environmental impact due to:

- (a) wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation, or
- (b) if it would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Project Impacts

Impact 4.6-1: Would the Project result in wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation.

As more particularly described in the discussion relating to “Energy Efficiency Measures — CEC SPPE Appendix B §(h)(4),” data centers are an energy-intensive land use, requiring electricity to power both information technology (IT) equipment and the mechanical and electrical systems that support it continuously, 24 hours a day. The Project incorporates energy efficiency measures throughout its conceptual design to minimize total energy consumption, improve operational PUE, and reduce environmental impacts. The energy efficiency measures described therein are consistent with industry best practices such as those established by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) TC 9.9, the Green Grid, and the U.S. Environmental Protection Agency (EPA) ENERGY STAR for Data Centers program.

Construction

Construction-Phase Electricity Use (CalEEMod 2022.1.1.37, Appendix A): Based on the CalEEMod Detailed Report (Section 5.8, Construction Electricity Consumption and Emissions Factors), grid electricity consumption during construction is 0.00 kWh per year for all construction years (2027, 2028, 2029, and 2030). No grid electricity is consumed during construction; all construction equipment is diesel-fueled (Tier 4 Final) or gasoline-fueled. Construction worker commute vehicles are gasoline-fueled. The CalEEMod model confirms that construction-phase electricity use is zero (CalEEMod Detailed Report, Section 5.8, p. 52/64).

Water-Associated Electricity, Construction Phase (CalEEMod 2022.1.1.37, Appendix A): The CalEEMod model applies default electricity intensity factors for water conveyance, treatment, and distribution to the modeled construction water use. Because construction-phase grid electricity is zero (as confirmed in Section 5.8 of the CalEEMod Detailed Report), no separate water-associated electricity figure is reported for construction. Water-associated electricity from construction activities is embedded within the CalEEMod water emissions output (Section 4.4 of the CalEEMod Detailed Report) and does not represent a separate grid electricity demand above the confirmed zero-kWh construction total.

Transportation-related fuel consumption during construction: the Project construction equipment and haul trucks would likely be diesel-fueled; construction worker commute vehicles would primarily be gasoline-fueled. All off-road construction equipment is diesel-fueled (Tier 4 Final) or gasoline-fueled; no natural gas appliances, heaters, or generators are modeled during construction. Confirmed by CalEEMod Detailed Report Section 5.2 (Off-Road Equipment) and Section 5.10.1 (Hearths: zero gas fireplaces), p. 48–53/64. Diesel consumption by construction equipment will be subject to CARB In-Use Off-Road Diesel Vehicle Regulation compliance (13 CCR § 2449 et seq.).

Natural gas, construction phase: Not applicable. The CalEEMod model includes no gas-fired construction equipment or temporary facilities for this Project. Natural gas service feasibility has been evaluated at a screening level by PG&E which indicated that the Project can be served from a nearby transmission main and that the requested load is feasible. Although natural gas service is available and was evaluated, it was not selected as the primary redundancy approach for the Project. Any limited natural gas service needs would be finalized during utility engineering and provider review; noting, however, that due to earthquake risk the Applicant does not intend to rely on natural gas for IT-critical systems.

CalEEMod Construction-Phase Energy Summary (CalEEMod 2022.1.1.37, Appendix A, verified): Grid electricity: 0.00 kWh/yr (all years); water-associated electricity: included in zero-kWh total; natural gas: none; diesel fuel: consumed by Tier 4 Final off-road equipment and haul trucks, subject to CARB In-Use Off-Road Diesel Vehicle Regulation (13 CCR § 2449 et seq.); gasoline fuel: consumed by construction worker commute vehicles.

Mitigation Measures: Implementation of Mitigation Measures MM 4.6-1 through 4.6-9 would be required.

Level of Significance: With the implementation of the stated mitigation measure, impacts would be *less than significant*.

Operation

The Project is designed to achieve a best-in-class PUE of approximately 1.41. As described in Section 4.6.5.8, the Project incorporates extensive energy efficiency measures consistent with and exceeding the mandatory nonresidential measures of California Building Standards Code, Title 24, Part 6 (California Building Energy Efficiency Standards). As stated in the above sub-section on Energy Efficiency, the Project incorporates energy efficiency measures throughout its conceptual design to minimize total energy consumption, improve operational PUE, and reduce environmental impacts.

During operations, the Project is estimated to consume approximately 867,240 MWh/year of electrical energy ($99 \text{ MW} \times 8,760 \text{ hours}$), which is proportionate to the large-scale computing infrastructure served. On-site fossil fuel combustion is limited to backup generator testing and emergency operation (estimated approximately 720 aggregate hours/year, approximately 720 MWh/year (16,700 MM BTU/year) and is not the primary energy source for the facility.

On-site solar PV (1 MW-DC) is estimated to generate approximately 2,015 MWh/year, providing a partial offset to non-IT utility consumption. According to a 2011 study by the UC San Diego Jacobs School of Engineering published in a study in the journal *Solar Energy*, which was partially funded by the CEC, solar PV panels significantly reduce heat gain in commercial buildings by acting as a shade, lowering roof temperatures, and reducing cooling loads by up to 38%. They act as a thermal shield, decreasing daytime roof surface temperatures and preventing direct sunlight from heating the building structure. This effect is most pronounced in sunny, hot climates such as the Project Site.

Water-Associated Electricity, Operations Phase (CalEEMod 2022.1.1.37, Appendix A): CalEEMod applies default electricity intensity factors for water conveyance, treatment, and distribution to the Project's modeled operational water consumption of 11,000,000 gallons per year (indoor cooling water; user-adjusted from the default of 51,162,081 gal/yr; Section 8.5.4 and Section 5.12 of the CalEEMod Detailed Report, pp. 54 and 64/64). The resulting water-associated electricity and associated GHG emissions are reported in CalEEMod Section 4.4 (Water Emissions by Land Use: annual $\text{CO}_2\text{e} = 32.84 \text{ MT/yr}$) and are embedded within the total operational electricity figure of 867,240,000 kWh/yr. No separate water-associated electricity subtotal is reported as a standalone line item in the CalEEMod output.

Natural gas, operations phase (CalEEMod 2022.1.1.37, Appendix A): The CalEEMod model reports a default operational natural gas figure of 10,578,708 kBTU/yr (10,578.7 MMBtu/yr) based on the General Office Building land use type (CalEEMod Detailed Report, Section 5.11, p. 54/64). Natural gas service feasibility has been evaluated at a screening level by PG&E which indicated that the Project can be served from a nearby transmission main and that the requested load is feasible. Although natural gas service is available and was evaluated, it was not selected as the primary redundancy approach for the Project. Any limited natural gas service needs would be

finalized during utility engineering and provider review; noting, however, that due to earthquake risk the Applicant does not intend to rely on natural gas for IT-critical systems.

The Project's energy consumption is proportionate to the essential data infrastructure services provided and the design incorporates best-available efficiency measures. No aspect of the facility design reflects wasteful or unnecessary energy consumption.

Mitigation Measures: Mitigation Measures MM 4.6-1 through MM 4.6-12 would be required.

Level of Significance: With the implementation of the stated mitigation measures impacts would be *less than significant*.

Impact 4.6-2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Construction activities would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency. Construction equipment and vehicles would comply with applicable CARB regulations.

Mitigation Measures: No mitigation would be required.

Level of Significance: Less than significant.

The Project is consistent with and advances state and local energy goals including:

- California Renewables Portfolio Standard (RPS): the Project's 1 MW on-site PV systems supports state renewable energy and GHG emissions goals;
- Emergency backup generators are intended to be fueled primarily with CARB-compliant renewable diesel (hydrotreated vegetable oil / HVO) when available, with ULSD as an alternate when renewable diesel is not accessible. The CAT 3516E generators are factory-certified for operation on HVO, Renewable Diesel (RD), and Hydrotreated Renewable Diesel (HRD) meeting EN 15940 or ASTM D975 (or blended with EN 590 diesel per LEHE2570-05);
- Executive Order N-79-20: The Project's microgrid-readiness and BESS integration capability supports grid flexibility and clean energy integration;
- CEC data center efficiency goals: The Project's PUE targets, real-time monitoring, and efficiency measures are consistent with CEC's strategic directives for data center energy efficiency. The Project's hybrid cooling tower + water-cooled chiller design with free-cooling coils is well-suited to the Mojave Desert climate and supports the Project's PUE target range;

- CPUC / CAISO resource adequacy: The Project will participate in the SCE interconnection and RA process;
- Building Decarbonization & Codes: The Project, by implementing MM 4.6-7, is consistent with the California Building Energy Efficiency Standards (Title 24, Part 6), Green Building Standards Code (CALGreen) (24 CCR Part 11), California Building Standards Code (2025) (Cal. Code Regs., Title 24), effective January 1, 2026, which mandates, among other things, stricter efficiency for new construction and major renovations, encouraging heat pumps for space/water heating to reduce the 25% of state GHGs linked to buildings.
- Kern County General Plan, Chapter 5: Energy Element: The Project is consistent with the goals, policies, and implementation measures of the Kern County General Plan including the Energy Element which encourages the safe and orderly development of transmission lines to access Kern County's electrical resources along routes that minimize potential adverse environmental, economic, and social impacts (Section 5.4.7), which the project addresses through SCE's customer-dedicated 115 kV transmission interconnection per MOS174. The Energy Element also supports solar energy development in desert planning regions that does not pose significant environmental or public health and safety hazards (Policies 1 and 3), which the project supports through its ancillary 1 MW rooftop and parking canopy photovoltaic system;
- Inyokern Specific Plan: Regarding the Land Use, Open Space, and Conservation Element; Resource (1.6), the Project is consistent with the goals, policies, and implementation measures of the plan's Energy Element which encourages development of alternative energy sources as it relates to the Project's proposed 1 MW PV Solar System. As indicated in MM 4.6-7, the Project will be compliant with the plan's Land Use, Open Space, and Conservation Element, 1.1: Physical Constraints; Relating to Seismic and Fire Code aspects of energy infrastructure by complying the California Building Energy Efficiency Standards (Title 24, Part 6), Green Building Standards Code (CALGreen) (24 CCR Part 11) and the California Building Standards Code (2025) (Cal. Code Regs., Title 24), effective January 1, 2026.

Mitigation Measures: Mitigation Measures MM 4.6-1 through MM 4.6-12 would be required.

Level of Significance: With the implementation of the stated mitigation measures impacts would be *less than significant*.

4.6.4 Mitigation Measures

Mitigation Measures MM 4.6-1 through MM 4.6-12 would be required. Mitigation Measure MM 4.6-1 (diesel fuel specification) is referenced in Section 4.3 (Air Quality). Table 4.6-A below provides the CEC SPPE Appendix B compliance cross-reference.

Table 4.6-A: CEC SPPE Appendix B Compliance Cross-Reference

Ref.	Appendix B Requirement	Section / Table	Status
Section (h) — Engineering Efficiency and Reliability			

(h)(4)(A)	Heat and mass balance diagrams for design conditions for each mode of operation	§ 4.6.5.7 / Table 4.6-11	✓ Addressed (conceptual parameters; final diagrams as permit condition)
(h)(4)(B)	Annual fuel consumption in BTUs by operating scenario	§ 4.6.5.3 / Table 4.6-6	✓ Addressed
(h)(4)(C)	Annual net electrical energy produced by source (MWh/yr)	§ 4.6.5.7 / Table 4.6-11	✓ Addressed
(h)(4)(D)	Annual operating hours by design condition	§ 4.6.5.3 / Table 4.6-5	✓ Addressed
(h)(4)(F)	Alternative generating technologies considered and rationale for selection	§ 4.6.5.9 / Table 4.6-9	✓ Addressed
(h)(3)(B)(i)	Expected availability factor and capacity factors	§ 4.6.5.3	✓ Addressed (≥99% per unit, Tier III/IV design)
Section (i) — Compliance with Laws, Ordinances, Regulations, and Standards (LORS)			
(i)(1)(A)	LORS compliance table with agency names, section cross-references, and conformance status	§ 4.6.5.10 / Table 4.6-12	✓ Addressed
(i)(2)	Agency contact information (name, title, address, phone, email)	§ 4.6.5.10	✓ Addressed (7 agencies)
(i)(3)	Permit schedule for all non-CEC permits	§ 4.6.5.10	✓ Addressed
(b)(1)(B)	Scale plan and elevation drawings for substation, generator yards, fuel farms	§ 4.6.5.11 / Appendix L.1, L.2, L.3	✓ Addressed — Provided in Appendix L.1, L.2, and L.3.
(b)(1)(C)	Description of depth of excavations and ground disturbances	§ 4.6.5.11 / Table 3-1 §4.18	✓ Addressed (cross-ref to Table 3-1, Section 4.18)
(b)(2)(B–C)	Transmission line photo simulation, route description, ROW width	§ 4.6.5.1 / Appendix A.2, L.1–L.3	✓ Addressed — Route in Appendix L.1–L.3. Photographic simulation in Appendix A.2.
(b)(2)(E)	Signed System Impact Study Agreement and proof of payment	§ 4.6.5.1 / On file	✓ Addressed — MOS with SCE executed. Signed SIA and proof of payment on file; available upon request.
<i>Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B. Effective July 20, 2023. All criteria addressed in this chapter.</i>			

Mitigation Measures

MM 4.6-1 Diesel Fuel Efficiency Standards. The Applicant will comply with the following:

- (a) Certification of diesel fuel supply under ISCC (International Sustainability & Carbon Certification) or RSB (Roundtable on Sustainable Biomaterials);

- (b) ASTM D975 standard for renewable diesel (R99/R100) and Biodiesel blends;
- (c) ASTM D6751 standard for biodiesel blend stock quality;
- (d) EPA 40 CFR 60 Subpart IIII under the New Source Performance Standards for stationary compression-ignition engines (diesel); particularly Tier 4 requirements for emergency standby engines.
- (e) CARB Renewable Diesel Mandate (Off-Road Regulation, §2449) relating to In-Use Off-Road Diesel-Fueled Fleets Regulation requirement for the use R99 or R100 renewable diesel
- (f) CARB Tier 4 Final (Stationary CI Engines) to ensure that diesel generators achieve Tier 4 final equivalent emissions per NFPA 110 TIA 22-1 with external SCR+DPF aftertreatment.
- (g) Eastern Kern Air Pollution Control District (EKAPCD), Rule 425 and 427; Rule 202 Guidelines. Prior to construction, the Applicant will obtain an Authority to Construct (ATC) pursuant to Rule 202 guidelines.
- (h) CARB Portable Equipment Registration Program (PERP) prior to use of portable/temporary generators
- (i) If CARB implements pending Tier 5 regulations, Applicant will comply with revised CARB Tier 5 standards.

MM 4.6-2 Energy Efficiency Assessment and Monitoring. The Applicant will implement the following in compliance with:

- (a) ISO/IEC 30134 Series in respect to PUE (30134-2), Renewable Energy Factor (30134-3), IT Equipment Energy Efficiency (30134-4), IT Equipment Utilization (30134-5), Energy Reuse Factor (30134-6), and Cooling Efficiency Ratio (30134-7); and
- (b) ENERGY STAR certification for Data Centers to achieve a score of 75+ level of certification.

The Applicant will also implement the following voluntary mitigation measures utilizing the RESET Pro platform. RESET Pro for Data Centers utilizes continuous, 15-minute interval data streams to monitor the ongoing performance of the facility:

- (c) Energy and Real-Time PUE: Continuous metering at the UPS output and utility entrance provides a dynamic Power Usage Effectiveness (PUE) profile and tracks the Renewable Energy Fraction (REF) in respect to Title 24, Part 6 (2025 Energy Code) mandatory sub-metering, ASHRAE 90.4 (Energy Standard for Data Centers), ISO/IEC 30134-2 (PUE), and ENERGY STAR Portfolio Manager;
- (d) Water and WUE: Monitors Water Usage Effectiveness (WUE) and cooling tower health via quality parameters like Total Dissolved Solids (TDS), pH, and Oxidation Reduction Potential (ORP) in respect to ISO/IEC 30134-9

(WUE) and Title 24, Part 6 cooling tower conductivity and blowdown controls;

- (e) Air Quality and Equipment Protection: Continuous monitoring of PM2.5 and corrosive gases (H₂S, SO₂) at server inlets prevents “copper/silver whisker” creep corrosion and maintains filtration efficiency relating to ASHRAE TC 9.9 Thermal Guidelines, ASHRAE Standard 71.4 (Equipment Environmental Conditions), and local AQMD/CARB air quality standards for perimeter and generator emissions; and
- (f) Waste and E-Waste: Tracks total waste mass and diversion rates for e-waste, packaging, and hazardous battery electrolyte relating to CalRecycle mandates, SB 20/SB 50 electronic waste requirements, and CARB Off-Road Regulation (§2449) for record-keeping of renewable fuel use.

MM 4.6-3 Energy Efficiency Monitoring and Reporting. The Applicant will implement the following in compliance with:

- (a) Title 24 Acceptance Testing & Commissioning (2025 Code) which requires formal acceptance testing of regulated systems by ATTCP-certified technicians before occupancy and documentation to ensure on going monitoring;
- (b) If the pending AB 222 legislation is promulgated, the Applicant will comply with annual reporting to the CEC on energy efficient elements of the Project including energy consumption, PUE, renewable energy share, and AI-model training energy use; and
- (c) Water Efficiency BMPs and WUE disclosure and water-efficient cooling system design data as required by the Inyokern Community Service District and/or state requirements.

MM 4.6-4 Mechanical and Cooling Systems. The Applicant will comply with the following:

- (a) ASHRAE 90.4 MLC standards for mechanical loads;
- (b) AHRI Certification (Chillers, DX, CRAH/CRAC) with Air-Conditioning, Heating and Refrigeration Institute third-party performance certification including AHRI 550/590 for chillers (IPLV, NPLV), AHRI 340/360 for unitary AC, AHRI 1360 for computer room air handlers.
- (c) ASHRAE 90.1 Chiller Efficiency Minimums for air- and water-cooled chillers referenced by Title 24 and 90.4.
- (d) CTI Certification (Cooling Towers) by the Cooling Technology Institute under thermal performance certification standards.

MM 4.6-5. Electrical Systems and Power Train. The Applicant will comply with the following:

- (a) ASHRAE 90.4 ELC relating to energy loss and energy efficiency;

- (b) DOE 10 CFR Part 431 (Transformers) Federal distribution transformer efficiency standards. Low-voltage dry-type transformers to meet DOE 2016 levels;
- (c) ENERGY STAR for UPS, Servers, and Data Storage by applying the SPEC SERT Server Efficiency Rating Tool, SNIA Emerald efficiency benchmark for storage systems.
- (d) 80 PLUS (Power Supplies) efficiency certification for internal server PSUs: Bronze, Silver, Gold, Platinum, Titanium levels; with Platinum or Titanium-rated PSUs as targets; and
- (e) IEEE 1680.4 environmental assessment standard for servers.

MM 4.6-6 California Title 24 and Title 20 Compliance. The Applicant will comply with the following:

- (a) Title 24 requirements relating to economizer operation, fan power limits (W per CFM), hot/cold aisle containment where applicable, variable-speed fan control, and differential pressure-based airflow control. Applies to new construction, additions, and alterations affecting cooling systems;
- (b) Title 24 Performance Path (CBECC-Com) modeling which will involve whole-building energy modeling in CEC-approved software to evaluate whether total modeled energy meets or exceeds a prescriptive baseline;
- (c) Ongoing Energy Monitoring pursuant to the Title 24 mandates for continuous energy monitoring documentation for data centers, including, if required by CEC or the County sub-metering of IT separately from mechanical vs. electrical loads; and
- (d) Appliance Efficiency Regulations (Title 20) to ensure compliance with the stricter of California has state-level appliance efficiency standards and federal Department of Energy minimums for transformers, motors, and other components.

MM 4.6-7 Building Efficiency and Building Standards. The Applicant will comply with the following:

- (a) California Building Energy Efficiency Standards (Title 24, Part 6); and
- (b) Green Building Standards Code (CALGreen) (24 CCR Part 11);
- (c) California Building Standards Code (2025) (Cal. Code Regs., Title 24), effective January 1, 2026.

The Applicant will also implement the following voluntary mitigation measures. RESET Embodied evaluates the “upstream” impacts of construction and IT hardware throughout their lifecycle stages:

- (d) RESET Embodied Standards – Embodied Carbon: to quantify greenhouse gas (GHG) emissions from the extraction and manufacturing of structural steel, concrete, and copper in respect to ISO/IEC 30134-8 (CUE) for carbon usage effectiveness, SB 253 (Climate Corporate Data Accountability Act) for mandatory reporting, and CEQA Appendix G for GHG quantification.
- (e) RESET Embodied Standards Material Circularity: to measure the percentage of materials by weight that are sourced from regenerated origins or have a high capacity for end-of-life recovery in respect to CalGreen (Title 24, Part 11) voluntary Tier 1 and Tier 2 material sustainability provisions and the EU Code of Conduct for Data Centres Best Practice Guidelines.
- (f) RESET Embodied Standards - Chemical Health: to screen for "Red List" chemicals (e.g., flame retardants, heavy metals) to ensure they are not specified into the facility in respect to CEQA Hazards/Hazardous Materials checklist and the California Health & Safety Code regarding the elimination of toxic substances.
- (g) RESET Embodied Standards - IT Hardware Lifecycle: to track the embodied carbon and circularity of hardware refresh cycles (servers, storage, networking) every three to five years in respect to IEEE 1680.4 / EPEAT environmental assessment for servers and the California Electronic Waste Recycling Act (SB 20/SB 50).
- (h) RESET Embodied Standards - Noise and Predictive Maintenance: to monitors low-frequency community noise at property lines and uses acoustic signatures to detect early-stage mechanical degradation in fans or chillers in regards to Kern County Noise Ordinance (Chapter 8.36), OSHA 29 CFR 1910.95 occupational noise limits, and Uptime Institute M&O Stamp of Approval for preventive maintenance.

MM 4.6-8 Construction Emissions Minimization Plan: Prior to commencement of ground-disturbing activities, the Applicant shall prepare a Construction Emissions Minimization Plan (CEMP) and submit it to the Eastern Kern Air Pollution Control District (EKAPCD) and, if applicable, the California Energy Commission (CEC) for review. The CEMP shall implement the following measures throughout the construction period (estimated 2027–2031):

- (a) Off-Road Equipment Emissions Standards. All diesel-powered off-road construction equipment greater than 25 horsepower shall meet U.S. EPA Tier 4 Final emission standards, or equivalent, to the maximum extent feasible, consistent with the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR § 2449 et seq.). Equipment that cannot meet Tier 4 Final requirements shall be equipped with a Level 3 diesel particulate filter (DPF) verified by CARB.

- (b) Fuel Requirements. All diesel-powered construction equipment and haul trucks shall use CARB-compliant ultra-low sulfur diesel (ULSD, ≤ 15 ppm sulfur) consistent with CARB diesel fuel quality standards (13 CCR §§ 2280–2299).
- (c) Idling Restrictions. Extended idling of diesel-powered construction equipment and haul trucks shall not exceed five (5) consecutive minutes, consistent with the CARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (13 CCR § 2485).
- (d) Compliance Coordinator. The Applicant shall designate a Construction Emissions Compliance Coordinator responsible for daily monitoring of equipment compliance, maintenance of equipment records, and response to emissions-related complaints from the public or regulatory agencies.
- (e) Recordkeeping and Reporting. The Applicant shall maintain records of equipment make, model, engine tier, and hours of operation for all off-road diesel equipment used on the Project site. Records shall be retained for a minimum of three (3) years and made available to EKAPCD and CEC upon request.
- (f) The CEMP shall be implemented for the duration of construction and shall be updated if construction equipment fleet composition materially changes.

MM 4.6-9 Grid Interconnection. Prior to issuance of building permits, the applicant shall:

- (a) submit final ASHRAE 90.4 MLC/ELC calculations and Title 24 CBECC-Com energy modeling;
- (b) obtain a SCE Real Properties analysis and finalize 115 kV transmission corridor alignment;
- (c) confirm that the Kramer 115 kV system load flow analysis demonstrates no adverse reliability impacts to existing customers including NAWSCL and Coso Geothermal Complex; and
- (d) execute an engineering/construction agreement with SCE for the 115 kV subtransmission facilities.

MM 4.6-10 EKAPCD Permits. Prior to construction, and conditions for the issuance of EKACP permits, the Applicant shall submit the following to the EKACP:

- (a) Heat and mass balance diagrams (final engineering-level) for each operating mode (App. B §(h)(4)(A)) — conceptual parameters provided in Table 4.6-11 (Section 4.6.5.7); final engineered diagrams to be submitted as a permit condition prior to construction;
- (b) Final PUE and source-specific emissions calculations (seasonal and annual averages) based on completed mechanical and electrical design;

- (c) Generator certified emission rates (g/bhp-hr) for NO_x, PM, CO, and HC for EKAPCD A/C application — engine model confirmed as Caterpillar 3516E with Johnson Matthey CompactSCRT aftertreatment. Certified test data and emission factors to be provided from EKAPCD-accepted test protocol;
- (d) Confirmed heat rate (BTU/kWh) at rated load and part load for final fuel consumption calculations;
- (e) SPCC Plan (40 CFR Part 112) — to be developed by licensed PE prior to fuel storage operations.

MM 4.6-11 Inyokern Community Service District. Prior to construction, and as a condition for the issuance of District permits and entitlements, the Applicant shall submit the following to the District:

- (a) Final cooling water demand calculations to be verified by Applicant's licensed civil engineer;
- (b) Final hydrology study and stormwater retention basin sizing;
- (c) LAFCo annexation application to annex the Project into the Inyokern CSD for water and waste water service; and
- (d) A fully-executed Water Service Agreement and associated fees.

MM 4.6-12 County Permits and Entitlements. Prior to construction, and as a condition for the issuance of Kern County permits and entitlements, the Applicant shall submit the following to the County:

- (a) Solar PV system final design specs, module/inverter selection, and NEM/interconnection arrangement with SCE to be provided upon completion of detailed PV design;
- (b) BESS specifications if and when future storage integration proceeds;
- (c) Signed System Impact Study Agreement with SCE and proof of payment (App. B §(b)(2)(E)) — Complete. MOS with SCE executed; signed SIA and proof of payment on file. Supporting documentation available to CEC upon request.;
- (d) Transmission line route final alignment, ROW width, tower/pole type, and conductor specifications; photographic simulation of transmission line route (App. B §(b)(2)(B–C)) along with Final route alignment, engineering drawings, and layout plans provided in Appendix L.1, L.2, and L.3. Photographic simulation provided in Appendix A.2.;
- (e) Scale plan and elevation drawings for generator yards, fuel farms, and on-site substation (App. B §(b)(1)(B)) — Complete. Provided in Appendix L.1, L.2, and L.3.;
- (f) Description of depth of excavations and ground disturbances for energy infrastructure (App. B §(b)(1)(C));
- (g) Quantified UPS reliability targets (availability factor, MTBF) upon equipment selection;
- (h) Final cooling water demand calculations to be verified by Applicant's licensed civil engineer and confirmed by the Inyokern CSD per its Will Serve Letter conditions prior to Water Service Agreement execution; and

- (i) Applicant's certification of the CEC SPPE jurisdictional basis — addressed in Sections 1.4 and 1.6 of this Application

Table 4.6-B - Energy Technical Area Summary

Energy Source / Topic	Quantity / Specification	Underlying Technical Source	Impact Conclusion	Finding
Grid Electricity (Operations)	867,240,000 kWh/yr; 99 MW permanent service (2029+); SCE evaluating 20 MW temporary service (mid-2028) per MOS174	CalEEMod 2022.1.1.37 (Appendix A of AQIA); SCE MOS174; Section 4.6.5.1	Electricity demand confirmed by SCE interconnection study; no wasteful or inefficient use identified	Less than significant
Diesel Fuel (Emergency Generators)	~16,700 MMBtu/yr; 40 x Cat 3516E generators; ~8 hrs/yr testing per engine; 50 hrs/yr CARB ATCM cap per engine (17 CCR § 93115); emergency operation ATCM-exempt	Section 4.6.5.3; EKAPCD permit conditions (Rules 202, 427); CARB ATCM 17 CCR §93115; Appendix A.3 (Generator Data & Specifications)	Diesel limited to emergency backup and annual testing; ULSD/renewable diesel required	Less than significant with mitigation (MM 4.6-1)
Construction Electricity	0.00 kWh/yr (2027–2031); all equipment diesel or gasoline fueled	CalEEMod 2022.1.1.37, Section 5.8 (Appendix A of AQIA)	No grid electricity consumed during construction; confirmed by CalEEMod output	Less than significant
Solar PV Offset (Planned)	~2,015 MWh/yr from rooftop/canopy PV; capacity TBD pending final engineering	Section 4.6.5.6; SCE NEM/interconnection (pending final design)	Solar PV provides partial offset to non-IT utility consumption	Less than significant
Natural Gas	Incidental building utility loads only; PG&E service available; CalEEMod default (10,578,708 kBTU/yr) is a planning-level estimate.	CalEEMod 2022.1.1.37 Section 8.5.3 (Appendix A of AQIA); Section 4.6.5	Natural gas serves incidental building utility loads only (not major facility systems); planning-level estimate consistent with CalEEMod model basis	Not applicable
Energy Efficiency / PUE	design basis PUE of 1.41; Tier 4 Final-equivalent generators (Tier 2 base + SCR/DPF aftertreatment); UPS and cooling optimization	Section 4.6.5.8; ASHRAE 90.4; Section 4.6.5.2	Extensive energy efficiency measures consistent with hyperscale data center best practice	Less than significant
Renewable Energy Policy Conformance (Impact 4.6-2)	SCE grid supply subject to California RPS; Title 24; CALGreen compliance	Section 4.6.5.10; CALGreen; Title 24 Part 6; California RPS (SB 100)	Project does not conflict with state or local renewable energy or efficiency plans	Less than significant

4.6.5 CEC SPPE Appendix B — Additional Energy Disclosure Requirements

This section provides the additional energy disclosure information required by CEC SPPE Appendix B, Sections (h) and (i). This information supplements the CEQA analysis provided in Sections 4.6.3 and 4.6.6, and is organized by Appendix B sub-requirement. All data is sourced from the Project’s supporting technical studies and the Conceptual Basis of Design.

4.6.5.1 Normal Electrical Service — Utility Power Supply — Appendix B §(b)(1–2)

Utility Interconnection

The facility will receive primary electrical service via a 115 kV interconnection to the SCE transmission system. Two (2) 115 kV overhead subtransmission lines (Route 1: ~8,000 LF; Route 2: ~4,000 LF) will be constructed from the Project substation to the existing SCE point of interconnection (POI) near US Route 395. The substation includes two 60/80/100 MVA transformers (115 kV to 34.6 kV) with LTC, 2N utility redundancy.

The utility interconnection agreement and System Impact Study (SIA) process will be conducted in coordination with SCE under CPUC Rule 21 and, where applicable, CAISO tariff requirements. The interconnection is anticipated to be a “Dedicated” or “Special Facilities” interconnection given the scale of the load and the proximity to the existing SCE 115 kV infrastructure.

A Memorandum of Service (MOS) with Southern California Edison (SCE) has been executed for the utility interconnection. The executed MOS and evidence of the signed System Impact Study Agreement (SIA) and proof of payment are on file and available to CEC staff upon request, consistent with Appendix B §(b)(2)(E). Supporting interconnection documentation will be provided as requested during the pre-filing conference and application review process.

Transmission Line Route Selection

The Project includes two customer-dedicated 115 kV overhead subtransmission lines — Route 1 (approximately 8,000 linear feet) and Route 2 (approximately 4,000 linear feet) per the MOS174 Method of Service Study completed by SCE on March 30, 2026 — connecting SCE’s existing Inyokern 115 kV Substation to the Project substation. Final route alignment, right-of-way width, tower and pole specifications, and conductor type for both routes are provided in the engineering drawings in Appendix L.1, L.2, and L.3. Photographic simulations of the transmission line routes within the existing SCE 115 kV corridor are provided in Appendix A.2. ROW acquisition is pending SCE Real Properties analysis and CPUC GO 131-E licensing. The route selection for each line was guided by the following criteria:

- Shortest practical distance from the Project site to the SCE point of interconnection, minimizing construction cost, land disturbance, and ROW impacts.
- Avoidance of sensitive biological, cultural, and visual resource areas to the maximum extent practicable.

- Consistency with existing utility corridor and road alignments in the Project vicinity.
- Engineering feasibility and constructability, including avoiding major geologic hazards or difficult terrain.

On-Site Medium Voltage Distribution

From the on-site substation, power is distributed at 34.5 kV via a medium-voltage ring bus to modular electrical suites (MERs) serving IT, mechanical, and ancillary loads. The ring bus configuration with sectionalizing breakers enables fault isolation and selective load restoration without interrupting the entire campus. Key distribution elements include:

- Dual medium-voltage switchgear lineups with sectionalizing breakers in a ring topology enabling fault isolation and maintenance without interrupting load.
- Modular electrical room packages serving each data hall, incorporating MV-to-LV transformation and redundant A/B UPS feeds.
- Reserved switchgear bays for future integration of on-site solar PV and battery energy storage systems (BESS).

Facility Design Drawings

Scale plans and elevation drawings establishing the physical footprint, dimensions, and layout of the on-site substation, generator yards, fuel farms, cooling equipment, and major electrical infrastructure are provided in Appendix L.1, L.2, and L.3, consistent with Appendix B §(b)(1)(B)). Conceptual ground disturbance depths for all site elements — including substation foundations, conduit runs, generator pad construction, and fuel tank installation — are provided in Table 3-1 (Conceptual Ground Disturbance Summary) in Section 4.18 of this Application, consistent with Appendix B §(b)(1)(C)). Foundation and grading details are further illustrated in the engineering drawings in Appendix L.1, L.2, and L.3.

4.6.5.2 Uninterruptible Power Supply (UPS) System and Cooling Systems — Appendix B §(h)(4)

UPS System

Each modular data hall electrical suite incorporates a dedicated UPS system providing seamless ride-through during utility interruptions and bridging the load during generator start sequence. The conceptual UPS design is based on the Omniverter OMNI MV UPS utilizing ZISC (Impedance Isolated Static Converter) architecture operating at medium voltage (34.5 kV). Key system parameters per the Omniverter technical specification include:

- Rating: 2,500 kVA / 2,500 kW per UPS unit; 54 units planned across the campus (per the Major Mechanical and Electrical Equipment List Rev. 0, November 2025).
- Operating voltage: 34.5 kV medium-voltage interface, eliminating large LV transformer banks and reducing distribution losses.
- Efficiency: 98 percent at 50 to 100 percent loading; 96 percent at 25 to 50 percent loading (IEC62040-3 Class 1 compliant).

- Battery energy storage (BESS): Lithium-ion, 520 to 750 VDC range, 15-minute ride-through autonomy minimum. Battery racks: 216 units, 600 VDC, 2,500 A (per equipment list).
- Fault clearing capability: 460 percent for 2 seconds in power conditioning mode; 360 percent for 2 seconds in independent mode.
- MTTR: Typically less than 15 minutes; plug-and-play power converters at low voltage.
- Acoustic: less than 80 dBA at 1 meter.

The UPS system monitors and conditions grid power continuously, isolating the IT load from utility disturbances including harmonics, voltage sags, and frequency excursions without cycling the battery storage. For deep sags and outages, the UPS transitions to independent mode, maintaining the IT load on battery until generator transfer is complete.

The UPS battery is not intended as a standalone energy storage or grid services asset. Its sole function is emergency ride-through to bridge the generator start sequence. It is distinct from any future battery energy storage system (BESS) described in Section 4.6.5.6.

Cooling System

Cooling is the largest non-IT energy load at the facility. As discussed in the Project Description the conceptual mechanical design is based on hybrid cooling towers and water-cooled chillers configured to remove heat generated by the data center, with these units designed to handle the full thermal load while using less water than traditional open cooling towers. Optional free-cooling coils may reduce or eliminate water usage under favorable ambient conditions. Direct liquid cooling of IT racks and data hall air cooling are supported through coolant distribution units fed by the central chilled-water plant.

Table 4.6-4: Cooling System Design Basis Summary

Parameter	Conceptual Design Basis	Notes / Status
Cooling System Type	Hybrid dual chilled-water plant with air-cooled chillers plus adiabatic (evaporative tower assist), feeding Computer Room Air Handlers (CRAHs) in IT suites, with liquid-assist capability for high-density HPC racks.	Specific equipment selection (chiller type, cooling tower configuration) to be finalized during detailed mechanical engineering.
Design Basis Ambient	Kern County high desert climate; design dry-bulb ~107°F (42°C); design wet-bulb ~71°F (22°C) (Inyokern area ASHRAE 0.4% design conditions).	High dry-bulb/low wet-bulb differential enables effective evaporative cooling and extended economizer hours relative to coastal California climates.
Water Source (Conceptual)	Potable and process water supply from Inyokern Community Services District (CSD). Per the District's Will Serve Letter, the CSD has sufficient capacity to serve the Project subject to conditions.	Inyokern CSD Will Serve Letter. Average and maximum daily water demand to be confirmed by Applicant's licensed civil engineer and provided in §4.14 Water Resources per App. B §(g)(14)(C)(v).

Estimated Cooling Water Demand	Per CSD Will Serve Letter, cooling tower makeup water estimated at approximately 28,500 GPD (~19.8 GPM) at conceptual design stage. Total average day demand estimated at approximately 40,430 GPD.	Final water demand calculation to be provided in §4.14 Water Resources per App. B §(g)(14)(C)(iii).
Wastewater / Blowdown Discharge	Cooling tower blowdown and sanitary wastewater to be discharged to the CSD POTW. Per the CSD Will Serve Letter, estimated average dry weather flow (ADWF) is approximately 6,670 GPD.	CSD Will Serve Letter issued. Sewer Service Agreement required prior to construction. Wastewater Characterization Report due to CSD 30 days prior to construction per CSD conditions.
Water Conservation Measures	CSD requires minimum cycles of concentration of 5.0, conductivity controllers, side-stream filtration, and drift eliminators on cooling towers per Will Serve Letter conditions.	Consistent with CEQA water efficiency objectives and Kern County water conservation requirements.

Note: Cooling system design is at a conceptual stage; final specifications, water demand calculations, and wastewater discharge planning will be fully developed in Section 4.18 (Utilities and Services Systems) and Section 4.14 (Water Resources) of this Application per App. B §(g)(14). The Inyokern CSD Will Serve Letter is included as an appendix to this Application.

4.6.5.3 Emergency Backup Generation — Appendix B §(h)(4)(D)

The facility includes emergency diesel generator systems to sustain campus operations during utility outages. Generators operate exclusively in emergency backup mode and for compliance testing; no electricity will be exported to the utility grid. Individual generator unit availability is targeted at no less than 99 percent per unit, consistent with Tier III/IV design standards (Uptime Institute; ANSI/TIA-942), with the N+1 redundant configuration within each yard (providing an aggregate N+2 redundancy at the campus level) providing additional system-level reliability.

Note regarding SCR and NFPA 110 compliance: NFPA 110, 2022 Edition, Tentative Interim Amendment TIA 22-1 (effective May 8, 2024) prohibits EPA-mandated inducement engine shutdowns due to emissions system controls that are required on Tier 4 certified engines with SCR for permanent Level 1 applications. The Project design team and the selected generator supplier will coordinate to confirm that the SCR aftertreatment configuration is specified to prevent inducement shutdown events during emergency operation, consistent with NFPA 110 TIA 22-1 and applicable EKAPCD permit conditions.

**Table 4.6-5: Emergency Generator System Summary
Generator Configuration and Emission Standards**

Parameter	Generator Yard A	Generator Yard B
Number of Gensets	20 × 3 MW (N+1)	20 × 3 MW (N+1)
Nameplate Capacity per Yard	~60 MW	~60 MW
Combined Campus Capacity	~120 MW gross nameplate	

Emission Standard	U.S. EPA Tier 2 (Emergency Stationary Applications) base engine. Johnson Matthey CompactSCRT aftertreatment achieves Tier 4 Final emission levels at stack. See Appendix F.1 AQIA for EKAPCD permitting basis.
Emission Control Technology	Johnson Matthey CompactSCRT system: Continuously Regenerating Trap (DPF) + Selective Catalytic Reduction (SCR). DEF/urea injection at 14.6 USGPH per engine. NOx reduction 92.6% (6.76 → 0.50 g/bhp-hr). Consistent with Appendix F.1 AQIA emission control evaluation.
Fuel Type (Primary)	Renewable Diesel (CARB-compliant, 13 CCR § 2292.5)
Fuel Type (Alternate)	CARB ULSD (≤ 15 ppm sulfur)
Operating Mode	Emergency backup and compliance testing only — no grid export
<i>Source: CAT 3516E Technical Data Sheet LEHE2570-05 (05/23); Johnson Matthey CompactSCRT GA Drawing 202-C0039989 Rev. B (October 2025); RBIDC Major Mechanical and Electrical Equipment List Rev. 0 (November 2025). Certified emission rates (g/bhp-hr) for EKAPCD A/C application to be submitted upon equipment procurement.</i>	

SPPE Nameplate Capacity Clarification: The Project’s generator system has a combined nameplate capacity of approximately 120 MW (40×3 MW), which exceeds the 100 MW SPPE threshold on a raw nameplate basis. However, the facility’s maximum operational load served is 99 MW, and the generator configuration includes N+1 redundancy within each yard — meaning not all 40 units are intended to operate simultaneously at full rated output under normal emergency conditions. The effective campus load served is capped at 99 MW. The CEC’s SPPE jurisdiction is triggered by nameplate generating capacity at or above 50 MW and is evaluated against the actual operational maximum load served, not raw nameplate capacity of redundant units. The SPPE jurisdictional basis — that the 99 MW maximum operational load governs for SPPE eligibility under PRC§ 25541 — is addressed in Sections 1.4 and 1.6 of this Application. The facility’s maximum simultaneous electrical demand is contractually and operationally limited to 99 MW per the SCE interconnection (MOS174).

Each backup generator is a Caterpillar 3516E High Power Density (HPD) diesel generator set rated at 3,000 kW (3,750 kVA) at 60 Hz, 1,800 rpm, certified under U.S. EPA Emergency Stationary Applications (Tier 2). Post-combustion emission control is provided by a Johnson Matthey CompactSCRT aftertreatment system mounted on the generator enclosure rooftop, consisting of a Continuously Regenerating Trap (DPF) and Selective Catalytic Reduction (SCR) unit, with urea (DEF) dosing at approximately 14.6 USGPH per engine at full load. The JM SCRT system achieves emission levels consistent with Tier 4 Final standards at the stack: NOx 0.50 g/bhp-hr (92.6% reduction from 6.76 g/bhp-hr engine-out), CO 0.24 g/bhp-hr (80% reduction), HC 0.018 g/bhp-hr (70% reduction), and PM 0.009 g/bhp-hr (85% reduction).

Each generator is supplied as an integrated package with prime mover, alternator, and dedicated programmable logic controller (PLC) for autonomous operation. All units are Uptime Institute Tier III/IV compliant and ANSI/TIA-942 Rated-1 through Rated-4 compliant. All generators will be installed within secondary containment basins. During standard emergency operation, each unit will operate at no more than 80 percent of its peak rated capacity to ensure reliability and longevity. The EKAPCD has jurisdiction over the Eastern Kern ozone nonattainment area, which is classified as “Serious” for the 2015 8-hour ozone NAAQS. Given this nonattainment status, the EKAPCD

Authority to Construct process for the generator fleet will include an evaluation of nitrogen oxide (NOx) emission offsets. The Johnson Matthey SCRT system's 92.6 percent NOx reduction rate is a key element of the permitting basis. The Air Quality Impact and GHG Analysis (Appendix F.1) addresses EKAPCD NOx offset requirements and permitting basis in detail. The Applicant will coordinate with EKAPCD prior to filing to confirm current offset thresholds and availability.

Annual Operating Hours by Scenario

Table 4.6-6 provides the estimated annual operating hours by scenario, required by Appendix B §(h)(4)(D). The table presents both per-engine hours and campus aggregate hours. Per-engine hours are the controlling metric for regulatory compliance: the California Air Resources Board (CARB) Airborne Toxic Control Measure (ATCM) for Stationary Diesel Engines (17 CCR § 93115) limits testing and maintenance operation to 50 hours per engine per year for emergency standby engines. Emergency operation during actual utility outages is exempt from this 50-hour limit under the ATCM and is tracked separately.

Table 4.6-6: Estimated Annual Generator Operating Hours by Scenario

Operating Scenario	Units per Event	Duration / Unit	Frequency	Per-Engine Hours/yr	Annual Aggregate Hours (All Engines)
Monthly load test (1 genset at a time, per CARB ATCM)	1	0.5 hr	12× per year per engine	6 hrs/yr per engine	240 hrs/yr (40 engines × 6 hrs)
Annual full-load integrated test	Each genset	2 hrs	1× per year	2 hrs/yr per engine	80 hrs/yr (40 engines × 2 hrs)
Total Testing/Maintenance (CARB ATCM Regulated)				~8 hrs/yr per engine	320 hrs/yr aggregate
CARB ATCM 50-hr Limit (17 CCR § 93115)			Testing/maintenance only — emergency operation exempt	50 hrs/yr (regulatory cap)	~8 hrs/yr well within 50-hr per-engine cap; 42 hrs/yr margin retained
Emergency operation (utility outages — ATCM-exempt)	Up to 40	Variable	Infrequent; ~10 campus-hours/yr avg estimated	~10 hrs/yr per engine (estimated)	~400 hrs/yr aggregate (estimated; exempt from 50-hr cap)
Commissioning testing (construction phase — one-time)	Up to 40	TBD	One-time during construction	TBD	TBD — disclosed to EKAPCD separately; tracked outside operational permit limits

Note: CARB ATCM 17 CCR § 93115 testing/maintenance limits apply on a per-engine basis (50 hrs/yr per engine). Emergency operation during actual utility outages is exempt from this limit. Per-engine testing hours (~8 hrs/yr) are well within the 50-hr CARB ATCM cap, retaining approximately 42 hrs/yr of margin per engine. EKAPCD will establish final operating hour limits and reporting requirements through the Authority to Construct and Permit to Operate process. Commissioning testing is a one-time construction-phase activity tracked separately from operational permit limits and disclosed to EKAPCD as part of the A/C application.

Annual Fuel Consumption Estimates

Table 4.6-7 provides estimated annual fuel consumption in gallons and BTUs by operating scenario, required by Appendix B §(h)(4)(B). Estimates are based on a Tier 2 base engine with Johnson Matthey Compact SCRT aftertreatment, with fuel consumption figures derived from Caterpillar 3516E published performance data (Technical Data Sheet LEHE2570-05, 05/23): 204.3 gallons per hour per unit at 100 percent rated load and 164.9 gallons per hour per unit at 75 percent load.

Table 4.6-7: Estimated Annual Fuel Consumption by Operating Scenario

Scenario	Est. Annual Fuel (gallons)	Est. Annual BTU (× 10 ⁶)	Notes
Monthly load tests	~39,600	~5,426	40 engines × 6 hrs/yr (0.5 hr/test × 12 months) = 240 aggregate engine-hours. Rate: 164.9 gal/hr/unit at 75% load (CAT 3516E LEHE2570-05).
Annual full-load integrated test	~16,340	~2,239	40 gensets × 2 hrs; full campus load scenario
Emergency operation (estimated)	~65,960	~9,036	40 engines × ~10 hrs/yr at 80% load (164.9 gal/hr/unit). Actual emergency fuel use varies with outage frequency.
Total Estimated Annual (normal operations)	~121,900 gal/yr	~16,700 MM BTU/yr	Excludes commissioning. Fuel rate: 204.3 gal/hr/unit at 100% load; 164.9 gal/hr/unit at 75% load (CAT 3516E LEHE2570-05).

Note: All values are estimates based on conceptual design. Final fuel consumption calculations will be provided in the air quality analysis using certified engine emission factors and actual operating hour data at the time of the EKAPCD Authority to Construct application.

4.6.5.4 Fuel Type, Characteristics, Supply Routes, and Onsite Storage — Appendix B §(h)(4)(B)

Fuel Type and Characteristics

Emergency backup generators are intended to be fueled primarily with CARB-compliant renewable diesel (hydrotreated vegetable oil / HVO) when available, with ULSD as an alternate when renewable diesel is not accessible. The CAT 3516E generators are factory-certified for operation on HVO, Renewable Diesel (RD), and Hydrotreated Renewable Diesel (HRD) meeting EN 15940 or ASTM D975 (or blended with EN 590 diesel per LEHE2570-05).

Table 4.6-8: Fuel Characteristics Summary

Parameter	Renewable Diesel (Primary)	ULSD (Alternate/Backup)
Sulfur Content	≤ 15 ppm (CARB ULSD-equivalent or better)	≤ 15 ppm (CARB ULSD)
Heating Value (approx.)	~127,000–128,500 BTU/gal (LHV)	~128,500–130,000 BTU/gal (LHV)
Cetane Number (typical)	> 70; ASTM D975 compliant	≥ 40 (ASTM D975)
Regulatory Standard	CARB renewable diesel pathway; 13 CCR § 2292.5	13 CCR §§ 2280–2299 (CARB diesel fuel standards)
GHG Intensity	Significantly reduced lifecycle CI score per LCFS (CARB 17 CCR § 95480 et seq.)	Conventional (IPCC Tier 2 emission factors apply)

Fuel Supply Routes and Facilities

Consistent with Section 3.5 and Section 3.9 of this Application, diesel fuel will be delivered to the Project Site by licensed fuel haulers using the existing public roadway network, including State Route 178 and connecting roads serving the Inyokern area. Deliveries will be scheduled on an as-needed basis reflecting the backup-only operating profile. The Applicant will prepare and implement a Spill Prevention, Control, and Countermeasure (SPCC) Plan addressing storage, use, and delivery of diesel fuel for standby generators. Full delivery procedures including truck staging and unloading protocols will be detailed in the SPCC Plan (40 CFR Part 112) and Hazardous Materials Business Plan (HMBP) (California H&SC §§ 25500–25545).

Table 4.6-9 Onsite Fuel Storage Configuration
Onsite Fuel Storage and Handling

Parameter	Yard A Fuel Farm	Yard B Fuel Farm	Total
Tank Config.	3 × 100,000-gal UL-2085	3 × 100,000-gal UL-2085	6 tanks total
Aggregate Capacity	300,000 gal	300,000 gal	600,000 gal
Tank Standard	UL-2085 double-wall, fire-resistant		
Secondary Containment	Impermeable berm (≥ 110% single largest tank volume)		
Leak Detection	Interstitial monitoring with continuous sensor and alarm		
Runtime (Full Load)	~24–72 hours continuous at 99 MW campus load (worst-case). Basis: 600,000 gal total storage ÷ ~6,858 gal/hr at 80% rated load (164.9 gal/hr/unit × 40 engines) = approximately 87 hours at continuous full emergency load. Actual runtime greater at partial load.		

SPCC Plan compliance (40 CFR Part 112) is required given aggregate aboveground oil storage of 600,000 gallons, well above the 1,320-gallon regulatory threshold. The SPCC Plan will be prepared by a licensed professional engineer and filed prior to fuel storage operations.

4.6.5.5 Operational Scenarios: Emergency, Testing, and Commissioning — Appendix B §(h)(4)(D)

Emergency Operation

Upon a disturbance or interruption in utility power supply, the UPS system immediately assumes the full IT load from stored battery energy. The Automatic Transfer Switch (ATS) commands all backup generators to start simultaneously. Each generator is controlled by a dedicated PLC and, upon reaching rated speed, voltage, and frequency, synchronizes with the campus bus and accepts load transfer within the target bridge window. Each unit will operate at no more than 80 percent of its peak rated capacity during emergency operation to ensure reliability and longevity. The generators will only operate simultaneously during an actual emergency utility outage; they will not participate in demand response, peak shaving, or grid-support operations.

Routine Testing and Maintenance

Testing program per NFPA 110 Chapter 8, CARB ATCM (17 CCR § 93115), and EKAPCD permit conditions:

- Monthly loaded test: each generator tested individually in sequence. Testing is conducted one generator at a time to minimize concurrent emissions. Minimum 30-minute loaded test per NFPA 110 requirements.
- Annual full-load integrated test: full campus integrated power system test confirming ATS transfer timing, generator paralleling, and UPS coordination.
- Preventive maintenance: conducted per manufacturer requirements and applicable regulatory intervals; operations logged and reported consistent with CARB ATCM and EKAPCD permit conditions.
- Per-engine testing hours are limited to approximately 8 hours per year under the conceptual testing program, well within the CARB ATCM 50-hour per-engine annual limit for testing and maintenance. Emergency operation during actual utility outages is exempt from the 50-hour limit.

Commissioning

Individual unit factory and site acceptance testing, ATS and paralleling panel functional testing, and full integrated power system commissioning with IT load over a scheduled commissioning window. Commissioning test plan (documenting generator operating hours during commissioning phase) will be provided to EKAPCD prior to construction.

4.6.5.6 Solar Photovoltaic and Battery Energy Storage — Appendix B §(h)(4)(C)

Solar PV

On-site solar PV is planned as part of the campus power concept, with rooftop and parking canopy installations identified in the Conceptual Basis of Design. PV generation will offset non-IT facility loads (mechanical, lighting, ancillary) during daylight hours, reducing net utility demand.

The Project is planned with approximately 1 MW-DC of solar PV (rooftop and parking canopy). Based on Kern County insolation of approximately 5.7 peak sun hours per day and a capacity factor of approximately 23 percent, estimated annual generation is approximately 2,015 MWh/yr. Final PV system specifications, module/inverter selection, and NEM/interconnection arrangement with SCE will be provided upon completion of detailed PV design.

Battery Energy Storage (Future)

The Conceptual Basis of Design identifies BESS integration capability via reserved switchgear bays and microgrid-readiness features. Future BESS could serve demand response, peak shaving, and ancillary services purposes. BESS specifications will be provided if and when future storage integration proceeds.

The UPS batteries described in Section 4.6.5.2 are distinct from any future BESS and serve solely as ride-through devices.

4.6.5.7 Heat and Mass Balance — Appendix B §(h)(4)(A)

Appendix B §(h)(4)(A) requires heat and mass balance diagrams for design conditions for each mode of operation. Because the Project is currently in conceptual design, full engineering-level heat and mass balance diagrams have not yet been completed. Consistent with CEC SPPE practice, the Applicant has provided quantified operating parameter tables and narrative descriptions of energy and mass flows across all relevant operating modes at this stage of design. Final engineering-level heat and mass balance diagrams will be prepared by the Project's mechanical and electrical engineers during detailed design and will be submitted to Commission staff as a permit condition prior to construction.

Energy and Mass Flow Parameters — Conceptual Basis

Table 4.6-10 presents the key energy and mass flow parameters for the RBIDC across operating modes based on the conceptual design. Because detailed engineering has not yet been completed, these values are derived from design basis targets and standard engineering conversion factors.

Table 4.6-10: Energy and Mass Flow Parameters by Operating Mode

Parameter	Normal Ops — Full Load (99 MW)	Normal Ops — Phase 1 (49 MW)	Emergency Gen. Operation	Notes / Methodology
Total Facility Electrical Load	99 MW	49 MW	99 MW (gen supply)	Conceptual ROM Inyokern
IT Load	70 MW	35 MW	70 MW	Design basis target
Non-IT Load (Cooling + Overhead)	29 MW	14 MW	29 MW	Total Facility Load minus IT Load
PUE	1.41	1.40	1.41	Total Facility Load / IT Load
Total Facility Heat Rejection Rate	~338 MM BTU/hr	~167 MM BTU/hr	~338 MM BTU/hr (facility) + gen exhaust	Facility load × 3,412 BTU/kWh; gen exhaust heat quantified in final design
Primary Energy Source	SCE utility grid — 115 kV interconnect	SCE utility grid	On-site diesel generators (40 × 3 MW)	Gen fuel: renewable diesel primary, ULSD alternate
Generator Fuel Input Rate (Emergency Mode)	N/A	N/A	~8,172 gal/hr (40 units at full load)	8,172 gal/hr total (40 units × 204.3 gal/hr/unit at 100% load per CAT 3516E Technical Data Sheet LEHE2570-05). At 80% rated operating load: ~6,858 gal/hr campus total (~171.4 gal/hr/unit).
Generator Heat Input Rate (Emergency Mode)	N/A	N/A	~1.06 billion BTU/hr	Per CAT 3516E Technical Data Sheet LEHE2570-05 at 100% rated load
Cooling System Mode	Economizer + mechanical chiller per ambient	Economizer + partial mechanical	Same as normal ops; loads unchanged	Kern County desert climate; extended economizer hours; see §4.6.5.2
Cooling Water Makeup (Estimated)	500–1,000 gpm recirculation	Proportionally reduced	Same as normal ops	Final water balance in §4.14

	(makeup ~28,500 GPD — final mech. design)			Water Resources; Inyokern CSD Will Serve Letter.
Annual Energy Consumption	~867,240 MWh/yr (utility)	~429,240 MWh/yr (utility)	~720 MWh/yr (generators, testing + emergency)	99/49 MW × 8,760 hrs; gen: ~720 aggregate hrs/yr; see Table 4.6-5
On-Site Solar PV Generation	~2,015 MWh/yr offset (1 MW-DC)	~2,015 MWh/yr offset	~2,015 MWh/yr (not dispatched during outage)	Kern County CF ~23%; 5.7 peak sun hrs/day; final per detailed PV design

Note: Heat input and heat rejection figures calculated from design basis electrical loads using standard engineering conversion factors (1 kWh = 3,412 BTU). Generator fuel consumption based on Caterpillar 3516E published data: 204.3 gal/hr per unit at 100% load; 164.9 gal/hr at 75%; 123.5 gal/hr at 50% (CAT Tech Data Sheet LEHE2570-05). Engine exhaust temperature at full load: 902°F (483°C); exhaust gas flow: 22,806 cfm wet per unit. Heat rejection to jacket water: 917 kW per unit; heat rejection to exhaust: 3,091 kW per unit. Full engineered heat and mass balance diagrams for all operating modes will be submitted as a permit condition prior to construction per App. B §(h)(4)(A).

4.6.5.8 Energy Efficiency Measures — Appendix B §(h)(4)

Data centers are an energy-intensive land use, requiring electricity to power both information technology (IT) equipment and the mechanical and electrical systems that support it continuously, 24 hours a day. The Project incorporates energy efficiency measures throughout its conceptual design to minimize total energy consumption, improve operational PUE, and reduce environmental impacts. The energy efficiency measures described below are consistent with industry best practices as established by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) TC 9.9, the Green Grid, and the U.S. Environmental Protection Agency (EPA) ENERGY STAR for Data Centers program.

Cooling System Efficiency

- Mechanical cooling with air-side economizer and evaporative pre-cooling optimized for Kern County high desert climate, targeting extended free-cooling hours.
- Variable-speed drives (VSDs) on all major mechanical equipment (pumps, cooling towers, air handlers).
- High-efficiency chiller plant design (target COP ≥ 5.5 at rated conditions).

Electrical Distribution Efficiency

- DOE 2016-compliant (or better) high-efficiency transformers throughout MV and LV distribution.
- Medium-voltage UPS systems (Omniwerter OMNI MV UPS, ZISC architecture) achieving 98 percent efficiency at 50 to 100 percent loading and 96 percent efficiency at 25 to 50 percent loading per IEC62040-3 Class 1 performance standard.
- Short distribution runs from substation to data hall switchgear, minimizing cable losses.

IT Load Optimization

- Hot aisle/cold aisle containment architecture in all data halls.
- Server inlet temperature set points at or above ASHRAE A2 envelope (up to 35°C inlet), enabling higher cooling supply temperatures and extended economizer use.
- Target rack density up to 30 kW/rack, improving facility-level PUE relative to low-density deployments.

Monitoring and Continuous Improvement

- Real-time PUE monitoring and reporting through DCIM platform with automated efficiency alerts.
- Sub-metering at major load category level (IT, mechanical, lighting, UPS losses).
- Benchmarking against EPA ENERGY STAR for Data Centers and ASHRAE TC 9.9 standards.

4.6.5.9 Alternative Generation Technologies Evaluated — Appendix B §(h)(4)(F)

Appendix B §(h)(4)(F) requires a discussion of alternative generating technologies considered and the rationale for selecting the proposed technology. **Table 4.6-11** provides a summary of the six alternative emergency generation technologies evaluated for the RBIDC.

Table 4.6-11: Alternative Emergency Generation Technologies Evaluated

Technology	Description	Factors Considered	Rationale for Not Selecting
Diesel / Renewable Diesel Reciprocating Engines (Selected)	Compression-ignition piston engines; CAT 3516E (EPA Tier 2 ESE) with Johnson Matthey CompactSCRT aftertreatment achieving Tier 4 Final emission levels at stack; proven technology for large-scale data center backup power.	High reliability, fast start (< 10 sec), mature supply chain, high power density, proven at hyperscale.	SELECTED. Best combination of start time, power density, reliability, and technology maturity for hyperscale emergency power.
Natural Gas Reciprocating Engines	Spark-ignition engines fueled by pipeline natural gas or LNG.	Lower criteria pollutant emissions than diesel; reduced onsite fuel storage need; lower GHG per kWh.	Pipeline natural gas supply reliability at the Inyokern site is insufficient for emergency backup (utility gas and utility power often fail together in major events). Onsite gas storage (LNG) at 99 MW scale is impractical.
Natural Gas Combustion Turbines	Open-cycle gas turbines for backup power generation.	High power output per unit; familiar technology.	Significantly longer start time than reciprocating engines (> 60–120 sec), exceeding UPS bridge window. High capital cost

			for backup-only use. Lower efficiency at part load.
Proton Exchange Membrane (PEM) Fuel Cells	Hydrogen fuel cells generating DC power; near-zero direct emissions.	Zero direct NOx/PM emissions; long runtime potential with hydrogen supply; quiet operation.	Hydrogen supply chain for a 99 MW backup system at the Inyokern desert location is not commercially viable at current scale. Technology not yet demonstrated at hyperscale backup power levels.
Flywheel / Short-Duration Energy Storage	High-speed flywheel arrays providing short-term UPS bridging (seconds to minutes).	Very high cycle life; no battery chemistry degradation; fast response.	Flywheel systems provide only seconds to a few minutes of runtime — insufficient to bridge a generator start without battery backup. Complements, does not replace, generators.
Long-Duration Battery Energy Storage (BESS)	Utility-scale lithium-ion or flow battery systems providing extended runtime backup.	Zero direct emissions; silent operation; fast response; potential grid services revenue.	A BESS system capable of sustaining 99 MW for 24–72 hours would require approximately 2,400–7,200 MWh of storage — a very large installation with very high capital cost, space requirements, and permitting complexity. Not commercially proven for standalone 99 MW backup at this scale.

Note: Technology evaluations reflect conditions and commercial availability at the time of conceptual design. The Project design incorporates microgrid-readiness features to accommodate future technology evolution.

4.6.5.10 Compliance with Laws, Ordinances, Regulations, and Standards (LORS) — Appendix B §(i)

Table 4.6-12 identifies the principal laws, ordinances, regulations, and standards applicable to the RBIDC energy systems, Project conformance status, and cross-references to the sections of this Application where each requirement is addressed. This table satisfies Appendix B §(i)(1)(A).

Table 4.6-12: Energy-Related LORS Compliance Summary — Appendix B §(i)(1)(A), §(i)(2), §(i)(3)

Law / Regulation / Standard	Agency	Applicability and Conformance	Section Reference
Title 24, Part 6 Cal. Code Regs. — Building Energy Efficiency Standards (CALGreen)	CEC / Local Building Dept.	Mandatory nonresidential energy efficiency standards for building envelope, HVAC, lighting, and service water heating. Conforming; design basis will meet applicable mandatory measures including HVAC commissioning, lighting controls, and sub-metering requirements.	§§ 4.6.5.8, 4.6.3
13 CCR §§ 2280–2299 — CARB Diesel Fuel Regulations	CARB	Governs ULSD (≤ 15 ppm sulfur) for on-road and off-road diesel. Conforming; facility intends to use CARB-compliant ULSD or renewable diesel when available.	§§ 4.6.5.4, 4.6.3
17 CCR § 93115 — CARB ATCM for Stationary Diesel Engines	CARB / EKAPCD	ATCM emission limits, operating hour caps, and maintenance requirements for emergency standby engines. Conforming; per-engine testing hours (~ 8 hrs/yr) well within 50-hr/yr cap. Operating hour limits to be integrated into EKAPCD A/C and P/O conditions.	§ 4.6.5.3
EKAPCD Rules 202 and 427 — Authority to Construct and Stationary Piston Engine Permitting	EKAPCD	Rule 202 establishes ATC permitting guidelines for stationary sources. Rule 427 (Stationary Piston Engines) governs reciprocating compression-ignition engines, including emergency standby generators. Conforming; ATC application to be filed concurrent with SPPE filing. Final permit conditions (emission limits, operating hour caps, recordkeeping) to be established through the EKAPCD A/C process.	§ 4.6.5.3; Appendix F.1 (AQIA)
40 CFR Part 60 Subpart IIII / Part 63 Subpart ZZZZ — EPA RICE NESHAP	US EPA / CARB	Federal emission standards for stationary CI internal combustion engines; sets emission limits and O&M requirements. Conforming; CAT 3516E base engine is EPA Tier 2 ESE certified; Johnson Matthey CompactSCRT aftertreatment achieves Tier 4 Final emission levels at stack. EKAPCD A/C permit will establish final stack emission limits.	§ 4.6.5.3
Public Resources Code § 25402 — Warren-Alquist Act (CEC Energy Efficiency)	CEC	Directs CEC to adopt and enforce energy efficiency standards.	§§ 4.6.1, 4.6.5.7

		Conforming; Project incorporates applicable CEC efficiency measures.	
CPUC Rule 21 / CAISO Tariff — Interconnection Procedures	CPUC / CAISO / SCE	Governs utility interconnection for loads ≥ 1 MW. System Impact Study required. Conforming; MOS with SCE executed; signed SIA and proof of payment on file consistent with §(b)(2)(E).	§ 4.6.5.1
NFPA 110 — Emergency and Standby Power Systems	Local AHJ / Fire Dept.	Design, installation, operation, and maintenance of emergency power systems including generators, ATS, and UPS. Conforming; system design to comply with NFPA 110 Type 10, including TIA 22-1 prohibition on SCR inducement shutdowns for Level 1 applications.	§§ 4.6.5.2, 4.6.5.3
40 CFR Part 112 — SPCC Plan Requirements	US EPA / Kern Co. Fire	Spill Prevention, Control, and Countermeasure Plan required for facilities with aggregate aboveground oil storage $\geq 1,320$ gal (facility has 600,000 gal). Conforming; SPCC Plan to be developed by licensed PE prior to fuel storage operations.	§ 4.6.5.4
California Health & Safety Code §§ 25500–25545 — Hazardous Materials Business Plan	Kern Co. Fire Dept. / CUPA	HMBP required for facilities handling hazardous materials (diesel fuel) above threshold quantities. Conforming; HMBP to be filed with Kern County CUPA prior to operations.	§ 4.6.5.4
Kern County General Plan / Zoning Ordinance	Kern County Planning	Data center use compatible with industrial zoning designation at Inyokern site. Conforming; confirmed during entitlement review.	§ 4.6.1
Kern County Building Code — Construction Permits	Kern County Building Dept.	Building, electrical, mechanical, and plumbing permits required for all permanent structures, generators, fuel tanks, and substation. Conforming; permits to be applied for prior to construction.	§ 4.6.5.1
Kern County Fire Code / CFC — Fuel Storage and Hazardous Operations	Kern Co. Fire Dept.	CFC requirements for aboveground fuel storage tanks, secondary containment, and fire suppression for generator yards. Conforming; tank design (UL-2085) and containment berms comply with CFC requirements.	§ 4.6.5.4

Inyokern Community Services District (CSD) — Water and Sewer Service	Inyokern CSD / Kern Co. LAFCo (Annexation)	Primary water and sewer service provider for the Project Site. Will Serve Letter for water service (ADD ~40,430 GPD; fire flow 3,000 GPM at 20 psi) and sewer service (ADWF ~6,670 GPD) issued.	§ 4.6.5.2

Agency Contact Information — App. B §(i)(2)

Agency	Contact	Address / Phone / Email	Function
Eastern Kern Air Pollution Control District (EKAPCD)	Gary Ray, Jr., Air Pollution Control Officer	2700 M Street, Suite 302, Bakersfield, CA 93301 Ph: (661) 862-5250 ekapcd@kerncounty.com	A/C and P/O for all stationary sources
SCE Grid Interconnection & Contract Development	Grid Interconnection Contact (MOS/SIA)	2244 Walnut Grove Ave, Rosemead, CA 91770 Ph: (909) 274-1106 interconnectionQA@sce.com	MOS executed. Signed SIA and proof of payment on file per §(b)(2)(E). Supporting documentation available upon request.
Kern County Planning & Natural Resources Dept.	Craig M. Murphy, Director	2700 M Street, Suite 100, Bakersfield, CA 93301 Ph: (661) 862-8600 planning@kerncounty.com	Land use entitlement and CEQA lead agency
Kern County Building Inspection Division	Building Official	2700 M Street, Suite 150, Bakersfield, CA 93301 Ph: (661) 862-8650 bid@kerncounty.com	Building, electrical, mechanical, and plumbing permits
Kern County Fire Dept. (CUPA / Hazmat)	Aaron Duncan, Fire Chief	5642 Victor Street, Bakersfield, CA 93308 Ph: (661) 391-7000 kfd@kerncounty.com fireprevention@kerncountyfire.org	HMBP, fuel storage CFC compliance, fire suppression
Inyokern Community Services District (CSD)	Holly Gallier, General Manager	Contact: Holly Gallier, General Manager Inyokern Community Services District, 1429 Broadway, P.O. Box 1418, Inyokern, CA 93527 Phone: (760) 878-0002 Email: manager@inyokerncsd.com Engineering Services Division Will Serve Letter issued April 2, 2026.	Water and sewer service. Will Serve Letter issued. Execute Water/Sewer Service Agreements prior to construction.
CEC Siting, Transmission & Environmental Protection Division	Ali Jahani, Project Manager, Siting, Transmission and Environmental Protection (STEP) Division	715 P Street, Sacramento, CA 95814 Ph: (279) 226-1175 Ali.Jahani@energy.ca.gov	CEC lead agency for SPPE; Project manager assigned at pre-filing

Permit Schedule — App. B §(i)(3)

Permit / Approval	Agency	Action Required	Timing / Notes
EKAPCD Authority to Construct (A/C)	EKAPCD	Submit concurrent with SPPE filing. Target issuance prior to construction start.	Confirm NOx offset requirements at pre-filing meeting with EKAPCD
EKAPCD Permit to Operate (P/O)	EKAPCD	Required prior to operation of any stationary source; 30–90 days post A/C upon equipment installation.	Operating hour limits and renewable fuel phasing milestones to be established at time of A/C application; coordinate with EKAPCD prior to filing.
SPCC Plan (40 CFR Part 112)	US EPA / Kern Co. Fire (CUPA)	Prepare and certify with licensed PE prior to fuel storage operations.	Required — 600,000-gal aggregate storage exceeds 1,320-gal threshold
Hazardous Materials Business Plan (HMBP)	Kern County Fire Dept. (CUPA)	File with Kern County CUPA prior to fuel storage operations; update annually.	CA H&SC §§ 25500-25545; coordinate with SPCC filing
Kern County Building Permits	Kern County Building Inspection	Apply prior to construction start; submit engineered plans per CBC.	Confirm routing for unincorporated Kern County (Inyokern) at (661) 862-8650
CSD Water Service Agreement / Sewer Service Agreement / WSA	Inyokern CSD	Will Serve Letter issued. Execute Water Service Agreement and Sewer Service Agreement prior to construction. Initiate WSA per Water Code §10910 if triggered by Lead Agency CEQA review.	CSD capacity confirmed as sufficient per Will Serve Letter. WSA required only if Project triggers Water Code §10910 threshold. SGMA basin constraints apply to groundwater supply analysis.
SCE Interconnection MOS / SIA	SCE Grid Interconnection & Contract Development	MOS with SCE executed. Signed SIA and proof of payment on file. Provide executed agreement and proof of payment to CEC per §(b)(2)(E).	Complete — supporting documentation available to CEC upon request.

4.6.5.11 Items to Be Finalized During Detailed Engineering

The following energy-related items are identified at the conceptual design stage. They are consolidated here to support review and to provide transparency to Commission staff and are stated commitments under mitigation measures MM 4.6-9 through MM 4.6-12.

- Heat and mass balance diagrams (final engineering-level) for each operating mode (App. B §(h)(4)(A)) — conceptual parameters provided in Table 4.6-11 (Section 4.6.5.7); final engineered diagrams to be submitted as a permit condition prior to construction.
- SPPE jurisdictional basis — addressed in Sections 1.4 and 1.6 of this Application.
- Final PUE calculations (seasonal and annual averages) based on completed mechanical and electrical design.
- Generator certified emission rates (g/bhp-hr) for NO_x, PM, CO, and HC for EKAPCD A/C application — engine model confirmed as Caterpillar 3516E with Johnson Matthey CompactSCRT aftertreatment. Certified test data and emission factors to be provided from EKAPCD-accepted test protocol.
- Confirmed heat rate (BTU/kWh) at rated load and part load for final fuel consumption calculations.
- Solar PV system final design specs, module/inverter selection, and NEM/interconnection arrangement with SCE to be provided upon completion of detailed PV design.
- BESS specifications if and when future storage integration proceeds.
- Signed System Impact Study Agreement with SCE and proof of payment (App. B §(b)(2)(E)) — Complete. MOS with SCE executed; signed SIA and proof of payment on file. Supporting documentation available to CEC upon request.
- Transmission line route final alignment, ROW width, tower/pole type, and conductor specifications; photographic simulation of transmission line route (App. B §(b)(2)(B–C)) — Complete. Final route alignment, engineering drawings, and layout plans provided in Appendix L.1, L.2, and L.3. Photographic simulation provided in Appendix A.2.
- Scale plan and elevation drawings for generator yards, fuel farms, and on-site substation (App. B §(b)(1)(B)) — Complete. Provided in Appendix L.1, L.2, and L.3.
- Description of depth of excavations and ground disturbances for energy infrastructure (App. B §(b)(1)(C)).
- Quantified UPS reliability targets (availability factor, MTBF) upon equipment selection.
- Final cooling water demand calculations to be verified by Applicant's licensed civil engineer and confirmed with Inyokern CSD per Will Serve Letter conditions prior to Water Service Agreement execution.
- SPCC Plan (40 CFR Part 112) — to be developed by licensed PE prior to fuel storage operations.
- Hazardous Materials Business Plan (HMBP) — to be filed with Kern County CUPA prior to operations.
- Commissioning test plan documenting generator operating hours during commissioning phase.

Construction-Phase Energy Calculations — Complete. Results provided in Section 4.6.3 (Impact 4.6-1 Construction) and Table 4.6-B, sourced from CalEEMod 2022.1.1.37 (Appendix A of AQIA, February 2026):

Grid electricity use: 0.00 kWh/yr (2027–2031); water-associated electricity: not separately reported (embedded in zero-kWh construction electricity total); natural gas: none (not applicable to this Project); transportation fuel: diesel-fueled Tier 4 Final off-road equipment and haul trucks plus gasoline-fueled worker commute vehicles (see CalEEMod Detailed Report Sections 5.1–5.3 for equipment lists and trip data). Source: CalEEMod Detailed Report (Inyokern Data Center

Detailed Report, 2/19/2026), Sections 5.1, 5.2, 5.3, and 5.8 (pp. 48–52/64), filed as Appendix A of the Air Quality Impact Analysis (Appendix F.1 of this Application).

4.6.6 Cumulative Setting, Impacts and Mitigation Measures

The geographic scope for cumulative energy impacts is the Indian Wells Valley (I WV) region and the broader SCE service territory in eastern Kern County. This geographic scope was selected because the land within the region shares the same utility transmission infrastructure, the same air district (EKAPCD), and the same groundwater basin, and future projects in the region would draw on the same SCE interconnection and fuel supply infrastructure as the proposed Project. See Appendix N.3 (Cumulative Projects and Cumulative Impacts Analysis) for the full list of past, present, and reasonably foreseeable projects considered in the cumulative energy analysis

As described in the Cumulative Projects List, there are approximately 11 projects proposed or under construction in the Indian Wells Valley region. Of these, the cumulative projects with the most direct overlap with the Project's energy-related impacts are: the RB Inyokern Solar Project and other utility-scale solar PV projects (cumulative SCE grid interconnection and transmission corridor loading), the IWVGA Imported Water Pipeline (cumulative construction equipment diesel emissions and fuel demand), and the Coso Geothermal Complex (existing 430 MW baseline generation facility that defines the current I WV grid baseline).

The proposed Project would add approximately 99 MW of new electrical demand to the SCE system through a new dedicated 115 kV interconnection. This demand represents a significant but individually accommodable addition to the SCE I WV service area, provided the System Impact Study confirms adequate transmission corridor capacity. The Project's on-site backup diesel generation (~120 MW nameplate, operational only during outages and testing) does not represent a cumulative addition to regional operational air emissions in a manner that would combine with other stationary sources to cause a cumulatively significant air quality impact, given the backup-only operational profile and EKAPCD permitting controls.

In addition, the Project's on-site solar PV (approximately 1 MW-DC) contributes modestly to the cumulative renewable energy build-out in the I WV consistent with California's renewable energy goals, complementing the larger utility-scale solar projects in the region.

The Project, combined with past, present, and reasonably foreseeable future projects in the Indian Wells Valley, would not result in a cumulatively significant impact related to energy resources. Each Project in the area is subject to the same applicable State and local regulations governing energy efficiency, fuel consumption, and emissions. All projects in the area would be subject to Kern County General Plan goals and policies and the Inyokern Specific Plan, which collectively encourage efficient energy development and environmental protection.

Mitigation Measures: Implementation of the stated mitigation measures MM 4.6-1 through MM 4.6-12 would be required.

Level of Significance: Less than significant.

4.7 - GEOLOGY AND SOILS

Introduction

This section of the Application describes the geologic and soil characteristics of the Project Site and potential geology and soils impacts associated with construction and operation of the Project and mitigation measures that would reduce these impacts, if applicable.

The analysis in this section is based on the Soil and Geology Report prepared for the Project by BSK Associates (Appendix K.1), the Phase 1 Environmental Project Site Assessment for the Project Site prepared by BSK Associates (Appendix J.1), the Paleontological Resources Report prepared for the Project by the Department of PaleoServices, San Diego Natural History Museum (Appendix C.1), and the Hydrology Study prepared for the Project by Quad Knopf, Inc. (Appendix E.1), and other published and background resources.

This section also addresses the applicable information requirements set forth in the California Energy Commission (CEC) Appendix B for a Small Power Plant Exemption (SPPE) application. All CEC SPPE Appendix B requirements for geology, soils, and paleontological resources are addressed in Section 4.7.5 of this chapter.

CEC SPPE Appendix B — Section (g)(15) and (g)(16) and (g)(17) Applicability

CCR Title 20, Division 2, Chapter 5, Appendix B, Sections (g)(15) (Soils), (g)(16) (Paleontologic Resources), and (g)(17) (Geological Hazards and Resources) require the Applicant to provide Project Site-specific information addressing soil conditions, paleontological resource sensitivity, and geological hazards relevant to the proposed facility.

All Section (g)(15), (g)(16), and (g)(17) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.7.1 through 4.7.4. The Appendix B supplemental disclosure is provided in Section 4.7.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.7-A, immediately preceding Section 4.7.4.

4.7.1 Environmental Setting

Regional Setting

Geology

The Project Site is located in the western portion of what is known as the Mojave Desert Geomorphic Province. The geologic features of this province are characterized by isolated mountains separated by vast desert plains which contain enclosed drainage basins (no drainage outlet to the ocean). The province is bounded by predominate northwest-southeast faults trends of the San Andreas Fault and a secondary east-west fault trend of the Garlock Fault that create a wedged shape. The Garlock Fault is a major strike-slip fault in Southern California that clearly

marks the northern boundary of the Mojave province and the southern ends of the Sierra Nevada. The San Andreas Fault is the master fault of an intricate fault network cutting through the California coastal region; the fault extends from northern California to the San Bernardino area of Southern California. The Project Site itself does not contain any faults, but is located in Southern California, which is a seismically active area (Terracon, 2015b).

Topography

Regional topography generally trends southeast toward the Searles Basin; however, localized drainage within the Project area follows a northeast gradient. The overall grade is very mild, typically less than two percent, resulting in a nearly flat to gently sloping surface. This terrain combined with the arid high desert climate influences Project Site drainage and development considerations.

Flood Zone

As stated in the Hydrology Study, the Project Site hydrology and climatology data of the Project Site and surrounding areas were utilized to determine the characteristics of the watershed and thus estimate the quantity of runoff. FEMA data, previous hydrology reports, historical rainfall data, soils reports and maps, topographic maps, and climatologic data were reviewed to determine the characteristics of the watershed.

The Project area is located within a Zone A FEMA special flood hazard area shown in Figure 4-1 of the Hydrology Study. Zone A flood hazard areas are subject to inundation by the 1% annual chance of flood; however, no base flood elevation is determined. The flood water in the Project area is the result of being adjacent to Little Dixie Wash, located south of the Project Site approximately 8,000 ft away.

Flooding Scour

Flooding scour—the erosion of soil and riverbanks caused by fast-moving water—is a regional concern in Kern County, particularly during atmospheric rivers and severe storms. High-flow events can cause significant erosion, debris flows, and structural damage to infrastructure across the county. Project Site-specific flooding scour conditions for the Project Site are addressed later in this section.

Fault Rupture Hazard Zone

The Alquist-Priolo Earthquake Fault Zoning Act (California Public Resources Code, Sections 2621 through 2630) was enacted in 1972 to reduce hazards associated with surface fault rupture. The Act prohibits construction of structures intended for human occupancy across active fault traces and requires local agencies to regulate development within designated Earthquake Fault Zones (EFZs). An active fault is defined as one that has ruptured during the Holocene epoch, which covers approximately the last eleven thousand years. The California Geological Survey (CGS) delineates EFZs on official maps that are periodically updated.

Ground surface rupture along an earthquake fault may cause damage to aboveground infrastructure and other features and occurs when movement on a fault deep within the earth breaks through to the surface. Fault ruptures almost always follow pre-existing faults that are zones of weakness. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Sudden displacements are more damaging to structures because they are accompanied by shaking. Fault creep is the slow, continuous aseismic fault split of the earth's crust. Fault rupture is considered to be most likely to occur along the identified traces of active faults (Bryant and Hart, 2007).

Seismic Hazard Zones (Liquefaction and Landslides)

Zones of Required Investigation, referred to as Seismic Hazard Zones in California Code of Regulations Article 10, Section 3722, are areas shown on official Seismic Hazard Zone Maps where Project Site investigations are required to determine the need for mitigation of potential liquefaction and earthquake-induced landslide ground displacements.

Expansive Soils

Expansive soils are fine-grained soils that contain clay minerals capable of significant volume changes with variations in moisture content. When these soils absorb water, they swell, and when they dry, they shrink. This shrink and swell cycle can cause differential movement, which may damage surface improvements such as slab-on-grade floors, pavements, and foundations.

Liquefaction and Lateral Spreading

Liquefaction is the phenomenon in which saturated granular sediments temporarily lose their shear strength during periods of earthquake-induced strong ground shaking. Liquefaction occurs when water saturated, loose materials (e.g., sand or silty sand) are weakened and transformed from a solid to a near-liquid state as a result of increased pore water pressure. The increase in pressure is caused by strong ground motion from an earthquake. Thus, liquefaction is a type of ground failure resulting from the generation of high pore-water pressures during earthquake ground shaking, causing loss of shear strength. Liquefaction is typically a hazard where loose sandy soils exist below groundwater.

For liquefaction to occur, the soil must be saturated (i.e., shallow groundwater) and be relatively loose. Liquefaction more often occurs in areas underlain by young alluvium where the groundwater table is higher than 50 feet below ground surface (bgs). In order to determine the liquefaction susceptibility of a region, three major factors must be analyzed. These include: (1) the density and textural characteristics of the alluvial sediments, (2) the intensity and duration of ground shaking, and (3) the depth to groundwater.

Lateral spreading is a potential hazard commonly associated with liquefaction where extensional ground cracking and settlement occur as a response to lateral migration of subsurface liquefiable material. These phenomena typically occur adjacent to free faces such as slopes and creek channels.

Groundwater Conditions

The Project Site is located within the Indian Wells Valley Groundwater Basin (Basin No. 6-54), part of the South Lahontan Hydrologic Region. This closed, internally drained basin is bounded by the Sierra Nevada to the west, the Coso Range to the north, the Argus Range to the east, and the El Paso Mountains to the south. According to the California Department of Water Resources (CDWR) Bulletin 118, groundwater occurs primarily in Pleistocene to Holocene alluvial fan and lakebed deposits. The basin contains an upper aquifer with limited yield and generally poor water quality, and a lower aquifer that provides higher yields and better water quality. Average annual precipitation is low, approximately 4 to 6 inches, consistent with the arid high desert environment (CDWR, 2003).

Paleontological Resources

Paleontological resources are the mineralized (fossilized) remains of prehistoric plants and animals and the mineralized impressions (trace fossils) left as indirect evidence of the form and activity of such organisms. These resources are located within sedimentary rocks or alluvium and are considered to be nonrenewable.

Formations that contain vertebrate fossils are considered more sensitive because vertebrate fossils tend to be rare and fragmentary. Formations containing microfossils, plant casts, and invertebrate fossils are more common. A significant fossil deposit is a rock unit or formation that contains significant nonrenewable paleontological resources. This is defined as comprising one or more identifiable vertebrate fossils, large or small, and any associated invertebrate and plant fossils, traces, and other data that provide taphonomic, taxonomic, phylogenetic, ecologic, and stratigraphic information, which provide datable material and climatic information. This definition excludes invertebrate or botanical fossils except when present within a given vertebrate assemblage. However, invertebrate and botanical fossils may be significant as environmental indicators associated with vertebrate fossils.

As more particularly described in the Paleontology Report, the Project Site is located in the southern end of Indian Wells Valley, in the southwestern portion of the Basin and Range geomorphic province. Basin and Range geomorphology is characterized by north-south trending fault-bounded horst (mountain range) and graben (valley) structures, with Indian Wells Valley being an example of the latter. Indian Wells Valley is bounded by the southern Sierra Nevada to the west, the El Paso Mountains to the south, the Spangler Hills to the southeast (thus separating it from Searles Valley), and the Coso Range and Argus Mountains to the north and northeast. Indian Wells Valley is a broad endorheic (terminal) basin, with playas marking the former presence of China Lake. During the latest Pleistocene, which was considerably wetter than the present, China Lake was formed when Owens Lake (in Owens Valley) overflowed from Sierran melt waters and flowed south into Indian Wells Valley. At times, pluvial China Lake would overflow, sending water east to fill pluvial Searles Lake. At extremely high water levels, the two lakes even coalesced into a single large lake (Smith, 2009). The Inyokern portion of Indian Wells Valley appears not to have been subject to lake inundation during the Pleistocene, as it occurs at elevations above the assumed maximum pluvial lake shoreline. Instead, from the Pleistocene through the present, sediments that eroded out of the surrounding highlands have been transported downstream

to form extensive coalesced alluvial fans near the mountain fronts, with finer-grained fluvial and lacustrine deposits farther out on the valley floor. This alluvial complex chiefly consists of sediments derived from weathering and erosion of granitic rocks from the eastern flank of the Sierra Nevada (Dutcher and Moyle, 1973).

Presumably, the Holocene-age deposits transition in the subsurface into older, Pleistocene-age sedimentary deposits. The total depth of Quaternary alluvial deposits in Indian Wells Valley is estimated at 2,000 feet, but the thickness of Holocene-age deposits specifically is unknown (Dutcher and Moyle, 1973). Elsewhere in central California, Holocene alluvial veneers can be as thin as one foot (Dibblee, 1999) or considerably thicker. Because the nearest mapped surface exposures of Pleistocene-age alluvial deposits occur approximately 2.5 miles to the southeast of the Project Site, the thickness of Holocene sediments and the depth below ground surface (bgs) of the transition to older Pleistocene sediments is unknown. For the purposes of the Paleontological Report, this temporal transition is conservatively estimated to occur at five feet or more bgs across the Project Site and within the one-mile study area. The Project Site-specific geotechnical investigation did not include exploratory augering, which could provide information for determining the subsurface conditions at the Project Site.

In the Indian Wells Valley, Quaternary vertebrate fossils have been reported in the literature only from lacustrine sediments, such as the China Lake Rancholabrean faunule discussed above (Fortsch, 1978; Jefferson, 1991b). Similar fossils are known from Pleistocene-age alluvial sediments in other inland valleys of California (e.g., Fay and Thiessen, 1993; Jefferson, 1991a,b; Reynolds, 1990; Reynolds and Reynolds, 1991; Scott and Cox, 2008; Springer et al., 2009, 2010), indicating the potential for the recovery of additional fossils from similar deposits in Indian Wells Valley.

Local Setting

Geology

According to California Geological Survey (CGS) Note 36, the Project Site lies within the Basin and Range geomorphic province, near its boundary with the Mojave Desert province and close to the Sierra Nevada province. The Basin and Range province is characterized by broad valleys separated by fault-block mountain ranges formed by crustal extension. These valleys typically contain thick sequences of alluvial deposits derived from surrounding highlands. The location near the Sierra Nevada and within a high desert setting contributes to an arid climate, geomorphic complexity, and regional seismic activity.

Locally, the Project Site is situated on the western portion of Indian Wells Valley, along the eastern flank of the Sierra Nevada. This area forms part of the western Mojave Desert physiographic province. Surface geology consists primarily of Quaternary alluvial deposits composed of sand, silt, and gravel derived from surrounding mountains. Bedrock exposures in nearby ranges include granitic rocks of the Sierra Nevada batholith and metamorphic units of Paleozoic age, with localized volcanic deposits. The region is characterized by interior drainage with lakes and playas. The region is tectonically active and influenced by the Eastern California Shear Zone, which accommodates significant strike-slip faulting. Nearby faults include the Little Lake and Airport

Lake fault zones, which have produced large earthquakes in recent history, such as the 2019 Ridgecrest sequence. Although the Project Site is not located within an Alquist-Priolo Earthquake Fault Zone, strong ground shaking is anticipated during major seismic events in Kern County and adjacent regions. Figure 7 shows the geologic map illustrating the geology of the Project Site area.

Topography

The Project Site, located west of Brown Road and Highway 178 in Inyokern, Kern County, lies within the Indian Wells Valley in the western Mojave Desert. As shown on Figure 3 of the Soils and Geology Report, the Project Site elevation ranges from approximately 2,435 feet (amsl) on the southern side to about 2,420 feet (amsl) on the northern side, indicating a gentle northeast slope across the property.

Soils

The Project Site is covered by native soils. Surface and near-surface soils consist of silty sand with very low expansion potential (Terracon, 2015b). Silty sands are interbedded with subsurface clay layers (Terracon, 2015a; SEI, 2014). The Project Site is relatively flat with an elevation of approximately 2,420 feet above mean sea level (amsl) (Terracon, 2015b).

Based on the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey for the Project Site, the following soil information is provided:

Table 4.7-1: (Restating Table 1, Soils and Geology Report)
Soil Information from USDA NRCS Web Soil Survey

MOJAVE DESERT AREA, NORTHWEST PART, CALIFORNIA	
45 — Typic Torriorthents and Typic Haplargids; thermic fan piedmonts	
Map Unit Setting	
<i>National map unit symbol:</i>	31qlk
<i>Elevation:</i>	2,610 to 4,840 feet
<i>Mean annual precipitation:</i>	5 to 8 inches
<i>Mean annual air temperature:</i>	59 to 66 degrees F
<i>Frost-free period:</i>	220 to 310 days
<i>Farmland classification:</i>	Not prime farmland
Map Unit Composition	
<i>Typic torriorthents and similar soils:</i>	40 percent

<i>Typic haplargids and similar soils:</i>	35 percent
<i>Minor components:</i>	25 percent
<i>Estimates are based on:</i>	Observations, descriptions, and transects of the mapunit
Description of Typic Torriorthents — Setting	
<i>Landform:</i>	Fan aprons
<i>Landform position (two-dimensional):</i>	Summit
<i>Down-slope shape:</i>	Linear
<i>Across-slope shape:</i>	Linear
<i>Parent material:</i>	Alluvium derived from igneous rock
Typical Profile	
<i>A - 0 to 3 inches:</i>	Gravelly sandy loam
<i>Ckq - 3 to 22 inches:</i>	Very gravelly loamy coarse sand
<i>Ck - 22 to 43 inches:</i>	Very gravelly coarse sand
<i>C'kq - 43 to 57 inches:</i>	Very gravelly coarse sand
<i>Ctkq - 57 to 61 inches:</i>	Very gravelly loamy coarse sand
Properties and Qualities	
<i>Slope:</i>	2 to 8 percent
<i>Surface area covered with cobbles, stones or boulders:</i>	4.0 percent
<i>Depth to restrictive feature:</i>	More than 80 inches
<i>Drainage class:</i>	Somewhat excessively drained
<i>Ksat (most limiting layer):</i>	Moderately high to high (1.42 to 2.83 in/hr)
<i>Depth to water table:</i>	More than 80 inches
<i>Frequency of flooding:</i>	None

<i>Frequency of ponding:</i>	None
<i>Calcium carbonate, maximum content:</i>	5 percent
<i>Maximum salinity:</i>	Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
<i>Available water supply, 0 to 60 inches:</i>	Very low (~2.0 inches)
Interpretive Groups	
<i>Land capability classification (irrigated):</i>	None specified
<i>Land capability classification (nonirrigated):</i>	7c
<i>Hydrologic Soil Group:</i>	A
<i>Hydric soil rating:</i>	Unranked
Description of Typic Haplargids — Setting	
<i>Landform:</i>	Fan remnants
<i>Landform position (two-dimensional):</i>	Summit
<i>Down-slope shape:</i>	Linear
<i>Across-slope shape:</i>	Linear
<i>Parent material:</i>	Alluvium derived from igneous and sedimentary rock
Typical Profile	
<i>A - 0 to 2 inches:</i>	Fine sandy loam
<i>Bt - 2 to 14 inches:</i>	Fine sandy loam
<i>Btk1 - 14 to 23 inches:</i>	Fine sandy loam
<i>Btk2 - 23 to 38 inches:</i>	Fine sandy loam
<i>BCKq - 38 to 47 inches:</i>	Gravelly loamy sand
<i>Ckq - 47 to 63 inches:</i>	Very gravelly coarse sand
Properties and Qualities	

<i>Slope:</i>	1 to 4 percent
<i>Depth to restrictive feature:</i>	More than 80 inches
<i>Drainage class:</i>	Well drained
<i>Ksat (most limiting layer):</i>	Moderately high to high (1.42 to 2.83 in/hr)
<i>Depth to water table:</i>	More than 80 inches
<i>Frequency of flooding:</i>	None
<i>Frequency of ponding:</i>	None
<i>Calcium carbonate, maximum content:</i>	2 percent
<i>Maximum salinity:</i>	Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
<i>Sodium adsorption ratio, maximum:</i>	4.0
<i>Available water supply, 0 to 60 inches:</i>	Low (~5.7 inches)
Interpretive Groups	
<i>Land capability classification (irrigated):</i>	2e
<i>Land capability classification (nonirrigated):</i>	7c
<i>Hydrologic Soil Group:</i>	A
<i>Hydric soil rating:</i>	Unranked
Minor Components	
<i>Typic torripsamments — Percent of map unit:</i>	15 percent
<i>Calcic petrocalcids — Percent of map unit:</i>	5 percent

<i>Typic haplocalcids — Percent of map unit:</i>	5 percent
Field Observations	
<i>Surface soils observed during field reconnaissance:</i>	Primarily loose silty sand or sandy silt with occasional surface gravel.

Source: USDA Natural Resources Conservation Service (NRCS) Web Soil Survey.

Groundwater Conditions

The Project Site is located within the Indian Wells Valley Groundwater Basin (Basin No. 6-54), part of the South Lahontan Hydrologic Region. This closed, internally drained basin is bounded by the Sierra Nevada to the west, the Coso Range to the north, the Argus Range to the east, and the El Paso Mountains to the south. According to the California Department of Water Resources (CDWR) Bulletin 118, groundwater occurs primarily in Pleistocene to Holocene alluvial fan and lakebed deposits. The basin contains an upper aquifer with limited yield and generally poor water quality, and a lower aquifer that provides higher yields and better water quality. Average annual precipitation is low, approximately 4 to 6 inches, consistent with the arid high desert environment (CDWR, 2003).

Data from the CDWR was reviewed for wells monitored in the vicinity of the Project Site. No wells with groundwater level data are located directly within the Project Site; however, several wells nearby provide historical groundwater information. The hydrograph for California State Well ID 26S39E30C001M is presented on Figure 6 of the Soils and Geology Report. The shallowest and deepest recorded groundwater depths for this well and other nearby wells are summarized in **Table 4.7-2** (Restating Table 2 of the Soils and Geology Report) below.

**Table 4.7-2 (Restating Table 2 of the Soils and Geology Report):
Groundwater Well Information**

Well ID	Approx. Location	Ground Elevation (ft)	Shallowest Depth (ft)	Year	Deepest Depth (ft)	Year
356522N1178032W001	0.25 mi NE of site	2,424.78	212.0	1953	—	—
26S39E30C001M	0.57 mi WSW of site	2,429.78	210.0	1944	246.56	1979
26S39E30F001M	0.59 mi WSW of site	2,436.78	220.0	1944	248.99	1989

Source: California Department of Water Resources (CDWR) Well Completion Report Map Application and SWRCB GeoTracker database.

Groundwater depths in the vicinity of the Project Site have historically ranged from approximately 210 feet to nearly 249 feet below ground surface, based on records from 1944 to 1989. No recent groundwater measurements were available for these wells.

A search for nearby wells was conducted using the State Water Resources Control Board (SWRCB) GeoTracker database. The search identified a report dated July 17, 2019, for the former Beck Oil Facility located at 1109 S. Brown Road, approximately 0.40 miles southwest of the subject Project Site. The report indicates that the depth to groundwater beneath the Beck Oil Project Site is approximately 275 feet. Groundwater was not encountered in soil borings drilled to a depth of 110 feet at that location.

According to the CDWR Well Completion Report Map Application, well WCR2018-008518, located at 1245 Broadway Street, approximately 0.25 miles southwest of the Project Site, reported a static water level of 292 feet below ground surface on April 10, 2018. The well was completed on the same date with a total depth of 596 feet and is classified as a public water supply well (CDWR, 2018).

Flood Zone

According to the Kern County General Plan and FEMA mapping (Figures 8 and 9 of the Hydrology Study), the Project Site is located within a designated flood hazard Zone A, which represents areas subject to inundation by the 1-percent annual chance flood (100-year flood) without detailed base flood elevations provided. The Project Site is bordered by Zone D to the north and by Zone X to the west. Zone D represents areas with undetermined flood hazards, but is still considered possible and Zone X represents a 0.2% annual chance of flooding (500-year flood). The Project Site is not within a mapped seismic hazard zone, landslide hazard zone, or steep slope area. No other physical constraint hazard zones have been identified at the Project Site.

Flooding Scour

Intermittent stream channels and arroyos in the Inyokern area can experience significant flow volumes and high velocities during short-duration, high-intensity storm events, particularly following intense rainfall (Wyckoff, 2007; CDWR, 2003).

Although evidence of scour was not observed within the Project Site during field reconnaissance, the potential for scour exists if structures are placed in or near active channels without adequate protection. Scour can undermine foundations and cause structural damage when concentrated flows erode supporting soils.

To minimize this risk, Project Site development would incorporate proper drainage design and erosion control measures. Recommended practices include maintaining setbacks from natural channels, stabilizing channel banks where necessary, and installing energy dissipation features at discharge points. Additional measures such as riprap, reinforced concrete aprons, or vegetative stabilization may be considered for areas subject to concentrated runoff.

A detailed hydrologic and hydraulic evaluation may be warranted during final design to confirm flow paths and ensure that structures are adequately protected from potential scour during extreme storm events.

Corrosion Potential

Corrosive soils can deteriorate buried metallic materials such as iron, steel, cast iron, ductile iron, galvanized steel, and dielectric-coated steel or iron if they are not properly protected. The level of protection required depends on the critical nature of the structure and the anticipated exposure conditions.

Confirmation of the corrosion potential of soils at the Project Site requires laboratory testing during the design-level geotechnical investigation. Recommended tests include determination of chloride and sulfate concentrations, pH, and redox potential. These parameters will help evaluate the aggressiveness of the soil environment and guide appropriate corrosion protection measures for underground utilities and structural components.

Fault Rupture Hazard Zones

A review of the latest CGS Earthquake Fault Zone maps and associated GIS data indicates that the subject property is not located within an Alquist-Priolo Earthquake Fault Zone (EFZ) as shown in Figure 10 of the Soils and Geology Report.

As described above, there are no faults located on the Project Site itself. Additionally, the Project Site is not located within an Earthquake Fault Zone as delineated by the Alquist-Priolo Earthquake Fault Zoning Act (Terracon, 2015b), which identifies active fault traces to mitigate the hazards of fault rupture (Bryant and Hart, 2007).

The nearest mapped EFZ is approximately 2.6 miles north-northeast of the Project Site and is associated with the Little Lake Fault Zone system. Based on current mapping, no regulatory setbacks apply to the proposed development.

To confirm these findings, a Project Site-specific geologic reconnaissance was conducted on November 17, 2025. This included a visual inspection for fault-related geomorphic features such as scarps, lineaments, and offset drainage. CGS maps, USGS fault databases, and aerial imagery were also reviewed to identify potential fault traces. No evidence of active faulting was observed within the Project Site boundaries.

Based on the mapping review and Project Site-specific investigation, the proposed development complies with the requirements of the Alquist-Priolo Act and no additional fault hazard mitigation measures are warranted at this time. If future mapping or investigations identify fault-related hazards, supplemental studies such as detailed trenching may be required prior to permit issuance. The closest Earthquake Fault Zones to the Project Site are summarized in table below.

**Table 4.7-3: (Restating Table 3 of the Soil & Geology Report)
Approximate Earthquake Fault Zone Distances from Project Site**

Fault Zone	Approximate Distance and Direction
Little Lake Fault Zone	~2.6 miles, north-northeast
Southern Sierra Nevada Fault Zone	~3.5 miles, northwest
Little Lake Fault Zone (secondary strand)	~4.3 miles, northeast
Garlock Fault Zone	~15.4 miles, south
San Andreas Fault Zone	~75 miles, south-southwest

Source: California Geological Survey (CGS) Earthquake Fault Zone maps and GIS data; Soils and Geology Report (Appendix K.1), Figure 10.

Seismic Hazard Zones (Liquefaction and Landslides)

Zones of Required Investigation, referred to as Seismic Hazard Zones in California Code of Regulations Article 10, Section 3722, are areas shown on official Seismic Hazard Zone Maps where site investigations are required to determine the need for mitigation of potential liquefaction and earthquake-induced landslide ground displacements.

As shown on Figure 10 of the Soils and Geology Report, there are no mapped Seismic Hazard Zones within the subject property in Inyokern, California. The nearest mapped liquefaction hazard zone is located in Rosamond approximately 60 miles southwest of the Project Site. Based on current mapping, no regulatory requirements for liquefaction or earthquake-induced landslide mitigation apply to the proposed development.

The absence of Seismic Hazard Zones at the Project Site is consistent with regional geologic conditions. Inyokern is situated within the Indian Wells Valley on alluvial fan deposits that generally exhibit coarse-grained textures and relatively deep groundwater levels. These conditions significantly reduce the potential for liquefaction. Additionally, the Project Site is located on gently sloping terrain with no nearby steep slopes, which minimizes the risk of earthquake-induced landslides.

Based on this review, the proposed development complies with the requirements of the Seismic Hazard Mapping Act. No additional mitigation measures related to liquefaction or earthquake-induced landslides are warranted at this time.

Slope Stability and Potential for Slope Failure

The Project Site and surrounding area are generally flat with very gentle gradients across the property. There are no significant natural or man-made slopes within or adjacent to the Project Site, and no evidence of landslides, erosion scarps, or other indicators of instability was observed during field reconnaissance. The underlying soils consist of relatively uniform alluvial deposits, which further reduce the likelihood of localized slope movement.

Based on these conditions, the potential for slope instability or slope failure at the Project Site is considered low. No additional mitigation measures related to slope stability are warranted for the proposed development.

Land Subsidence and Hydrocompaction Potential

Land subsidence in California generally occurs in areas where fluids such as petroleum or groundwater are withdrawn, and in arid regions where hydrocompaction of loose near-surface soils can occur. Subsidence caused by groundwater withdrawal has been documented extensively in the Central Valley and other parts of California, where excessive pumping leads to compaction of fine-grained aquifer sediments and permanent lowering of land surface elevations.

The subject property in Inyokern is located within the Indian Wells Valley Groundwater Basin, an arid region that relies heavily on groundwater for municipal and agricultural use. Although groundwater levels in the basin have declined over time, documented subsidence has primarily occurred in the southern Antelope Valley and portions of the San Joaquin Valley, where pumping rates and fine-grained aquifer systems are more pronounced. According to USGS and CDWR data, no significant subsidence zones have been mapped in the immediate vicinity of Inyokern, and the Project Site is not located within an area currently identified as susceptible to subsidence from petroleum or groundwater withdrawal. Therefore, subsidence due to groundwater withdrawal is not expected to impact the Project Site under current conditions.

Hydrocompaction is the collapse and consolidation of loose, dry, low-density soils when they become saturated with water. This process is common in arid regions where wind-deposited sediments or mudflow materials were originally placed in a moisture-deficient state. When these soils are thoroughly wetted, they can undergo significant settlement.

Preliminary evaluation indicates that soils at the Project Site may have some potential for hydrocompaction, which will require further assessment. A detailed geotechnical investigation will be performed once the final layout of structures is defined to confirm the presence and extent of collapsible soils.

If hydrocompaction-prone soils are encountered, mitigation measures may include over-excavation and recompaction of the affected materials or designing foundations to extend below the hydrocompaction zone. These approaches help reduce the risk of differential settlement and maintain structural integrity.

Expansive Soils

Expansive soils are fine-grained soils that contain clay minerals capable of significant volume changes with variations in moisture content. When these soils absorb water, they swell, and when they dry, they shrink. This shrink and swell cycle can cause differential movement, which may damage surface improvements such as slab-on-grade floors, pavements, and foundations.

Near-surface soils observed at the Project Site and mapped by the United States Department of Agriculture are primarily granular alluvial fan deposits with low clay content. These soil types generally indicate a low potential for expansive behavior. According to USDA soil survey data for

Kern County and the Indian Wells Valley, the dominant soil series in the area exhibit low shrink and swell ratings, meaning expansive soils are not considered a significant hazard at this location.

Although the likelihood of expansive soils at the Project Site is low, a design-level geotechnical investigation will be required to confirm these conditions. Laboratory testing such as Atterberg limits, free swell tests, and moisture-density relationships will be performed to verify the absence of highly plastic clays.

If expansive soils are encountered during detailed investigation, mitigation measures may include moisture control through proper Project Site drainage and landscaping, use of moisture barriers beneath slabs, deepened foundations to bypass active soil zones, or over-excavation and replacement with non-expansive engineered fill. These measures help reduce the risk of differential movement and maintain structural integrity.

Seismic Hazard Assessment

The types of seismic hazards assessed include earthquake induced ground motion, seismic induced landslides, liquefaction, and seismic induced settlement.

Seismic Sources

Figure 11 and Figure 12 in the Soil and Geology Report illustrates the present local and regional fault maps showing major faults that may influence seismic hazard at the Project Site. Ground motion at the Project Site can result from earthquakes on any of the surrounding seismic sources. To evaluate the contribution of these sources, a probabilistic seismic hazard disaggregation was performed using the USGS Earthquake Hazard Toolbox and the ASCE 7 Hazard Tool, consistent with the procedures outlined in ASCE/SEI 7-22 and adopted by the 2025 California Building Code (American Society of Civil Engineers [ASCE], 2022; U.S. Geological Survey [USGS], 2025).

Disaggregation was conducted at the Maximum Considered Earthquake (MCE) Risk-Targeted Ground Motion level, as required by ASCE 7-22 for site-specific seismic design. The analysis provides the modal magnitude, source-to-site distance, and epsilon, which represents the deviation of ground motion from the median prediction for a given magnitude and distance (ASCE, 2022). These parameters are used in probabilistic seismic hazard calculations.

Results from the USGS disaggregation indicate that the most significant contributor to hazard at the Project Site is a large-magnitude event on the Garlock Fault, with an extreme scenario of approximately magnitude 7.7. The modal magnitude for the Project Site is 5.5 Mw at distance of approximately 8.7 kilometers. These values are appropriate for use as probabilistic input parameters in site-specific ground motion studies and are consistent with the design earthquake ground motion requirements of ASCE 7-22 (USGS, 2025).

Earthquake Ground Motion – 2025 California Building Code (ASCE 7-22)

Project Site Class

Under the 2025 California Building Code, which adopts ASCE/SEI 7-22, seismic site classification is based primarily on the average shear-wave velocity in the upper 30 meters (V_{s30})

of the subsurface. This method replaces previous alternatives such as Standard Penetration Test blow counts or undrained shear strength, which are no longer permitted for site class determination (American Society of Civil Engineers [ASCE], 2022)

Confirmation of the site class for the Project Site will require subsurface geophysical measurements or reliable correlations to V_{s30} . These measurements are typically obtained through surface-wave testing methods such as MASW (Multichannel Analysis of Surface Waves) or ReMi (Refraction Microtremor), which provide accurate shear-wave velocity profiles without invasive drilling (Louie et al., 2025). The design-level geotechnical investigation will include V_{s30} testing to establish the appropriate site class for seismic design.

Project Site class determination is critical because it directly influences the design response spectrum, seismic coefficients (SDS and SD1), and the Multi-Period Design Response Spectrum (MPRS) required by ASCE 7-22 for structural design (ASCE, 2022; USGS, 2025).

Seismic Design Criteria – 2025 California Building Code (ASCE 7-22)

The 2025 California Building Code adopts ASCE/SEI 7-22, which defines seismic ground motion based on the Risk-Targeted Maximum Considered Earthquake (MCER). The MCER represents the most severe earthquake effects considered by the code, adjusted for targeted risk, and is determined for the orientation that produces the largest horizontal ground motion response. Based on Chapter 20 of ASCE 7-22, the Project Site shall be classified as Project Site Class A, B, BC, C, CD, D, DE, E or F based on the Project Site soil properties.

Ground motion parameters for design are obtained using the USGS Design Ground Motion Tools or the ASCE 7 Hazard Tool, which provide risk-targeted spectral accelerations for periods of 0.2 seconds (SS) and 1.0 second (S1) at 5% damping. These values are then adjusted for site conditions using site coefficients and used to calculate design spectral accelerations (SDS and SD1) and the MPRS required by ASCE 7-22.

For preliminary planning at the Project Site, Default Project Site Conditions values are provided because our preliminary soil and geologic evaluation for this project excluded subsurface characterization and site class determination via measurement of shear wave velocities. For Default Project Site Conditions, the OSHPD Seismic Design Maps Tool and Chapter 16 of the 2025 CBC based on ASCE 7-22 output the most critical spectral acceleration parameters risk targeted maximum considered earthquake values from Project Site Classes C, CD, and D. These values were provided so that the structural engineer can develop spectral response accelerations based on the most critical spectral response acceleration at each period for each of these Project Site Classes.

The actual seismic design parameters will require confirmation of site class through subsurface testing and V_{s30} measurements during the design-level geotechnical investigation. Project Site class determination is critical because it directly affects seismic coefficients and the design response spectrum.

Table 4.7-4 and **Table 4.7-5** below (Restating Table 4 and Table 5, respectively, Soil and Geology Report) below present the spectral acceleration parameters produced for an assumed Default Project Site Conditions by OSHPD Seismic Design Maps Application and Chapter 16 of the 2025 CBC based on ASCE 7-22.

Table 4.7-4 (Restating Table 4, Soil and Geology Report)
Spectral Acceleration Parameters Northwest Corner; Risk Targeted Maximum Considered Earthquake (Lat: 35.650087, Lon: -117.811197)

Criteria	2025 CBC Value		Reference
Project Site Class	Default (most critical values across Project Site Class C, CD, and D)		ASCE 7-22 Section 11.4.2.1
MCER Mapped Spectral Acceleration (g)	SS = 1.68	S1 = 0.48	USGS Mapped Value
Project Site Adjusted MCE Spectral Acceleration (g)	SMS = 1.89	SM1 = 1.19	USGS Mapped Value
Design Spectral Acceleration (g)	SDS = 1.26	SD1 = 0.79	ASCE 7-22 Eq. 11.4.1-2
VS30 (m/sec)	260		https://www.seismicmaps.org/ https://ascehazardtool.org/
Project Site Short Period – TS (Seconds)(for construction of the two-period design spectrum)	TS = 0.626		TS = SD1/ SDS, ASCE 7-22, Section 11.3
Project Site Long-Period – TL (Seconds)(for construction of the two-period design spectrum)	TL = 8		USGS Mapped Value
Seismic Design Category (SDC)	D		ASCE 7-22, Section 11.6
Definitions: MCER = Risk-Targeted Maximum Considered Earthquake MCEG = Maximum Considered Earthquake Geometric Mean			

Table 4.7-5 (Restating Table 5, Soil and Geology Report)
Spectral Acceleration Parameters Southeast Corner; Risk Targeted Maximum Considered Earthquake (Lat: 35.650055, Lon: -117.807157)

Criteria	2025 CBC Value		Reference
Project Site Class	Default (most critical values across Project Site Class C, CD, and D)		ASCE 7-22 Section 11.4.2.1
MCER Mapped Spectral Acceleration (g)	SS = 1.69	S1 = 0.48	USGS Mapped Value
Project Site Adjusted MCE Spectral Acceleration (g)	SMS = 1.9	SM1 = 1.19	USGS Mapped Value
Design Spectral Acceleration (g)	SDS = 1.27	SD1 = 0.79	ASCE 7-22 Eq. 11.4.1-2
VS30 (m/sec)	260		https://www.seismicmaps.org/ https://ascehazardtool.org/
Project Site Short Period – TS (Seconds)(for construction of the two-period design spectrum)	TS = 0.626		TS = SD1/ SDS, ASCE 7-22, Section 11.3
Project Site Long-Period – TL (Seconds)(for construction of the two-period design spectrum)	TL = 8		USGS Mapped Value
Seismic Design Category (SDC)	D		ASCE 7-22, Section 11.6
Definitions: MCER = Risk-Targeted Maximum Considered Earthquake MCEG = Maximum Considered Earthquake Geometric Mean			

The preliminary seismic parameters are based on using the Default Project Site Conditions and should only be used for preliminary planning purposes. Actual seismic design parameters will require subsurface data and will be determined during a design level geotechnical investigation.

Geometric Mean Peak Ground Acceleration – 2025 California Building Code

Under Section 1803.5.12 of the 2025 California Building Code, peak ground acceleration (PGA) used for dynamic lateral earth pressure and liquefaction analysis must be based on either a site-specific study in accordance with ASCE 7-22 Chapter 25 or in accordance with ASCE 7-22 Section 11.8.3. These values are obtained using the USGS Design Ground Motion Tool or the ASCE 7 Hazard Tool, which incorporates the latest seismic hazard data from the 2023 National Seismic Hazard Model and are based on ASCE/SEI 7-22 and ASCE/SEI 7-22 Table 1.5-2 for Risk Category.

For preliminary planning at the Project Site, Default Project Site Conditions values can be used. The mapped geometric mean PGA (PGAM) are provided in **Table 4.7-6** (Restating Table 6, Soil and Geology Report) for the Maximum Considered Earthquake (MCE) level. These parameters are critical for evaluating liquefaction potential and seismic settlement.

Table 4.7-6 (Restating Table 6, Soil and Geology Report)
Maximum Considered Earthquake (MCE) level

Location	Coordinates	Geometric Mean PGA (PGAM)	Reference
Northwest Corner	35.650087, -117.811197	0.74	USGS Mapped Value
Southeast Corner	35.650055, -117.808157	0.75	USGS Mapped Value

For liquefaction and seismic settlement analyses, a PGAM range of 0.74 g (Northwest Corner) to 0.75 g (Southeast Corner) should be considered for preliminary evaluation. Final design values will require confirmation of site class through V_{s30} testing and site-specific ground motion analysis during the design-level geotechnical investigation.

The levels of earthquake-induced ground motion presented in Section 4.1 of the Soil and Geology Report can be considered moderately intense to intense and structures should be designed to comply with seismic response requirements at the Project Site. Structural dynamic characteristics contained in the Kern County Code of Building Regulations and the California Building Code and State of California design standards should be incorporated into the project design.

Liquefaction and Lateral Spreading

Liquefaction is a phenomenon where saturated, cohesionless soils lose shear strength during earthquake shaking. Strong seismic ground motion can induce cyclic shear strain reversals of significant amplitude, resulting in lateral and vertical soil displacements and a reduction in bearing capacity. Historically, liquefaction has caused severe damage to structures, embankments, levees, and transportation infrastructure. Seed and Idriss (1971) identified key factors influencing liquefaction potential, including soil type, void ratio, depth to groundwater, duration of shaking, and confining pressure. Conditions most conducive to liquefaction include loose, well-sorted fine sands, shallow groundwater, intense seismic shaking, and prolonged ground motion.

At the Project Site, groundwater is currently deeper than 50 feet below ground surface (bgs), indicating a low potential for liquefaction. However, a design-level geotechnical investigation will be required to evaluate the potential for dry seismic settlement under the anticipated seismic loading conditions.

Paleontological Resources

As mapped by Dibblee and Minch (2008a) and further described in the Paleontology Report, the entirety of the Project Site is underlain at the surface by alluvial gravel and sand of Holocene age (Figure 2 of the Paleontology Report). These alluvial deposits are generally derived from erosion of the surrounding highlands, particularly the eastern slopes of the Sierra Nevada.

No known paleontological localities are documented within one mile of the Project Site based on institutional records searches. A records search of the paleontological collections housed at the NHMLA documented a total of 16 fossil localities from Indian Wells Valley (Appendix A). All of these fossil localities are associated with Pleistocene sediments of pluvial China Lake and serve as the basis for recognizing the China Lake Rancholabrean faunule (Fortsch, 1978). These documented localities occur between 11 and 17 miles to the northeast of the Project Site. The late Pleistocene-age China Lake Rancholabrean faunule, which was recovered from the grounds of the Naval Ordnance Test Station near Ridgecrest, yielded 11 species of birds, including coots, cranes, cormorants, ducks, geese, grebes, and swans, as well as 11 species of mammals, including extinct horse, mammoth, camel, llama, bison, deer, and saber-toothed cat (Fortsch, 1978). The age of the assemblage is estimated at approximately 18,600 years old based on a radiocarbon sample of mammoth ivory (Kurtén and Anderson, 1980). A records search of the paleontological collections at the SBCM also only returned fossil localities from the China Lake Rancholabrean faunule, with the nearest localities located approximately eight to nine miles to the northeast of the Project Site (Appendix B of the Paleontology Report). These localities yielded remains of mammoth, camel, and unidentified mammals.

A records search of the paleontological collections at the SDNHM found no fossil collection localities from similar Holocene- or Pleistocene-age alluvial deposits located within a five-mile radius of the Project Site or Indian Wells Valley as a whole. However, the SDNHM does have several fossil localities from a similar geologic setting in the vicinity of the Rosamond Dry Lakebed in the Antelope Valley of the western Mojave Desert; these localities were recovered at depths of only two to four feet bgs in sediments associated with the shoreline of pluvial Lake Thompson, and produced late Pleistocene-age fossil remains of a Columbian mammoth (*Mammuthus columbi*), isolated teeth of rodents (*Dipodomys* sp., *Thomomys* sp., and *Microtus* sp.) and shells of the freshwater snail *Planorbella* sp. and the freshwater pea clam *Euglesa* sp.

4.7.2 Regulatory Setting

Geologic resources and geotechnical hazards are governed primarily by local jurisdictions. The conservation elements and seismic safety elements of city and county general plans contain policies for the protection of geologic features and avoidance of hazards. The California Environmental Quality Act (CEQA) is the major environmental statute that guides the design and construction of Projects on nonfederal lands in California. This statute establishes a specific process for environmental impact analysis and public review. In addition, the Project proponent must comply with other applicable federal, State, and local statutes, regulations, and policies. Relevant and potentially relevant statutes, regulations, and policies are discussed below.

Federal

Clean Water Act (Erosion Control)

The Federal Clean Water Act (CWA) (33 USC 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point-source and certain nonpoint-source discharges to surface water. Such discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). Projects that disturb 1 acre or more are required to obtain NPDES coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction Activity (Construction General Permit), Order No. 2009-0009-DWQ. The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which includes best management practices (BMPs) to regulate stormwater runoff, including measures to prevent soil erosion. Requirements of the CWA and associated SWPPP are described in further detail in Section 4.10, Hydrology and Water Quality.

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act was enacted in 1977 to reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program. To accomplish this, the Act established the National Earthquake Hazards Reduction Program (NEHRP). This program was significantly amended in November 1990 by NEHRP, which refined the description of agency responsibilities, program goals, and objectives.

NEHRP's mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. The NEHRP designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Programs under NEHRP help inform and guide planning and building code requirements such as emergency evacuation responsibilities and seismic code standards such as those to which the Project would be required to adhere.

State

California Building Standards Code (Title 24)

The California Building Standards Code (Title 24) establishes comprehensive requirements for building construction, seismic design, and grading throughout the state. The 2025 edition of Title 24, which becomes effective January 1, 2026, incorporates the latest seismic hazard data and design provisions from the 2024 International Building Code and ASCE 7-22, along with California-specific amendments. These standards govern structural safety, excavation, foundations, retaining walls, and grading activities to ensure resilience against seismic hazards.

The updated code integrates revised seismic design parameters based on new USGS hazard maps, which adjust risk-targeted maximum considered earthquake ground motions. Project Site coefficients for soil amplification have been refined to better represent site-specific conditions, and near-fault provisions have been clarified to require additional design forces for structures located near active faults. Geotechnical investigations are mandatory for most projects and must address liquefaction potential, differential settlement, lateral spreading, and dynamic lateral earth pressures. Reports must include site-specific seismic parameters, groundwater depth, slope stability analysis, and foundation recommendations, particularly for sites classified in Seismic Design Categories D, E, or F.

The code also updates design criteria for earth-retaining structures, requiring compliance with ASCE 7 provisions for seismic loads, and clarifies requirements for excavation support systems. Grading regulations emphasize erosion control, slope stability, and safe excavation practices, with local jurisdictions authorized to impose stricter requirements based on geologic and topographic conditions.

Historically, California relied on the Uniform Building Code as a model standard until the late 1990s. Today, the California Building Standards Code fully replaces the UBC, incorporating national model codes with California-specific amendments. Local jurisdictions may adopt additional requirements, but they cannot be less restrictive than Title 24.

Alquist-Priolo-Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act, enacted in 1972 following the destructive 1971 San Fernando earthquake, was designed to mitigate the hazard of surface fault rupture to structures intended for human occupancy. The Act prohibits the construction of most occupied structures directly across the surface trace of active faults and requires local agencies to regulate development within designated Earthquake Fault Zones (EFZs). These zones are delineated by the State Geologist based on evidence of Holocene fault activity (movement within the last 11,000 years) and are shown on official maps published by the California Geological Survey (CGS).

Under the Act, cities and counties must withhold development permits for projects within an EFZ until a site-specific geologic investigation demonstrates that the proposed building site is not threatened by surface displacement during future faulting. Investigations typically include detailed fault mapping and, where necessary, fault trenching to confirm the absence of active fault traces beneath the proposed building footprint. The Act applies to subdivisions and structures for human occupancy, with certain exemptions for minor alterations and retrofits as outlined in recent amendments.

The most recent guidance for implementing the Act is provided in Special Publication 42 (SP 42), revised in 2018, which outlines procedures for assessing fault rupture hazards and reviewing geologic reports. Additionally, preliminary and updated EFZ maps continue to be released by CGS as new data becomes available.

For the Project Site, review of current CGS Earthquake Fault Zone maps indicates that the property is not located within an Alquist-Priolo Earthquake Fault Zone, and no active faults have been mapped crossing the Project Site. Therefore, the risk of surface fault rupture at this location is considered low.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, enacted in 1990, addresses earthquake-related hazards other than surface fault rupture, specifically liquefaction and seismically induced landslides. The Act requires the State Geologist, through the California Geological Survey (CGS), to identify and map Seismic Hazard Zones where these risks are significant. These zones, referred to as Zones of Required Investigation under California Code of Regulations (CCR) Title 14, Article 10, Section 3722, are delineated on official Seismic Hazard Zone Maps.

Within these zones, site-specific investigations are mandatory before development permits can be issued. The purpose of these investigations is to determine whether mitigation measures are necessary to reduce the potential for ground failure caused by liquefaction or earthquake-induced landslides. Geotechnical reports for projects in these areas must include evaluations of soil strength, groundwater conditions, slope stability, and recommended mitigation strategies such as ground improvement or structural reinforcement.

As of the latest mapping updates, the California Geological Survey has not issued a Seismic Hazard Zone Map for the Project Site, and the property is not located within a designated Zone of Required Investigation. Consequently, while the Act does not impose mandatory mitigation requirements for this Project Site, a design-level geotechnical investigation should still evaluate potential dry seismic settlement and other seismic hazards consistent with current building code provisions.

NPDES General Permit for Construction Storm Water Discharges

The National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity applies to projects that disturb one acre or more of soil, or are part of a larger common plan of development that collectively disturbs one acre or more. In California, this permit is implemented and enforced by the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) under Water Quality Order 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ. These amendments remain current and govern storm water compliance for construction activities.

The permit requires preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) by a Qualified SWPPP Developer (QSD). The SWPPP must identify Best Management Practices (BMPs) to prevent pollutants from entering storm water runoff and include monitoring programs for visual inspections, sediment tracking, and water quality sampling. Construction sites must eliminate or minimize non-stormwater discharges to storm drain systems and waters of the United States. Regular inspections of storm water control measures and pollution prevention practices are mandatory throughout the construction period.

Compliance is verified through the Storm Water Multiple Application and Report Tracking System (SMARTS), which requires electronic filing of permit registration documents, SWPPP certification, and monitoring reports. Projects must also comply with numeric action levels (NALs) and risk-based requirements established under the permit.

Public Resources Code, Section 5097.5

This statute prohibits the removal of any paleontological Project Site or feature without permission of the jurisdictional agency, defines the removal of paleontological Sites or features as a misdemeanor, and requires reasonable mitigation of adverse impacts to paleontological resources resulting from development.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act, in cooperation with the CWA, established the SWRCB. The SWRCB and the nine RWQCBs are responsible for protecting California's surface water and groundwater supplies. Section 13000 of the act directs each RWQCB to develop Water Quality Control Plans for all areas in its region, to designate the beneficial uses of California's rivers and groundwater basins; these plans are the basis for each board's regulatory program.

The Basin Plan gives direction on the beneficial uses of state waters in Region 7 within which the Project Site is located, describes the water quality that must be maintained to support such uses, and includes programs, Projects, and other actions necessary to achieve the standards established in the Basin Plan. The Lahontan RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to individuals, communities, or businesses whose waste discharges may affect water quality. These requirements are state Waste Discharge Requirements for discharge to land or federally delegated NPDES permits for discharges to surface water. Responsibility for implementing CWA Sections 401–402 and Section 303(d) is also outlined in the Porter-Cologne Water Quality Control Act.

California Environmental Quality Act (CEQA, Public Resources Code Section 21000 et seq.)

CEQA protects paleontological resources on both state and private lands in California. This act requires the identification of environmental impacts of a proposed Project, the determination of significance of the impacts, and the identification of alternative and/or mitigation measures to reduce adverse environmental impacts. The Guidelines for the Implementation of CEQA (Title 14, Chapter 3, California Code of Regulations: 15000 et seq.) outlines these necessary procedures for complying with CEQA. Paleontological resources are specifically included as a question in the CEQA Environmental Checklist (Section 15023, Appendix G): "Will the proposed Project directly or indirectly destroy a unique paleontological resource or Project Site or unique geologic feature." Most CEQA lead agencies follow the definitions and guidelines provided by SVP (2010, 2025), which are in line with industry standards (e.g., Murphey et al., 2019). SVP (2025) provides criteria for determining the significance of paleontological resources and for appropriate measures to minimize impacts to paleontological resources. As advised by SVP (2010), impacts to paleontological resources can be minimized to a level below the threshold of significance through: 1.) the permanent preservation of a fossil locality and its contained fossil resources; or 2.) the implementation of a paleontological mitigation program that would reduce any adverse impacts to a level below the threshold of significance through the salvage and permanent storage of any salvaged fossils in an established scientific institution.

Section 5097.5 of the Public Resources Code (Chapter 1.7)

This statute prohibits the removal of any paleontological Project Site or feature without permission of the jurisdictional agency, defines the removal of paleontological Sites or features as a misdemeanor, and requires reasonable mitigation of adverse impacts to paleontological resources resulting from development.

Local

Kern County General Plan

The policies, goals, and implementation measures in the Kern County General Plan for geology and soils that are applicable to the Project are provided below. The Kern County General Plan contains additional policies, goals, and implementation measures that are more general in nature and not specific to development, such as the Project. These measures are not listed below, but all policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Chapter 1: Land Use, Conservation, and Open Space Element; 1.3: Physical and Environmental Constraints

Goal 1	To strive to prevent loss of life, reduce personal injuries, and property damage, minimize economic and social diseconomies resulting from natural disaster by directing development to areas which are not hazardous.
Policy 1	Kern County will ensure that new developments will not be Sited on land that is physically or environmentally constrained (Map Code 2.1 [Seismic Hazard], Map Code 2.2 [Landslide], Map Code 2.3 [Shallow Groundwater], Map Code 2.5 [Flood Hazard], Map Codes from 2.6 – 2.9, Map Code 2.10 [Nearby Waste Facility], and Map Code 2.11 [Burn Dump Hazard]) to support such development unless appropriate studies establish that such development will not result in unmitigated significant impact.
Measure D	Review and revise the County's current Grading Ordinance as needed to ensure that its standards minimize permitted topographic alteration and soil erosion while maintaining soil stability.
Measure N	Applicants for new discretionary development should consult with the appropriate Resource Conservation District and the California Regional Water Quality Control Board regarding soil disturbances issues.

1.10.3: Archaeological, Paleontological, Cultural, and Historical Preservation Element

Policy 25	The County will promote the preservation of cultural and historic resources that provide ties with the past and constitute a heritage value to residents and visitors.

Measure M In areas of known paleontological resources, the County should address the preservation of these resources where feasible.

Chapter 4: Safety Element; 4.3: Seismically Induced Surface Rupture, Ground Shaking, and Ground Failure

Goal 1 Minimize injuries and loss of life and reduce property damage.

Policy 1 The County shall require development for human occupancy to be placed in a location away from an active earthquake fault in order to minimize safety concerns.

Measure B Require geological and soils engineering investigations in identifying significant geologic hazard areas in accordance with the Kern County Code of Building Regulations.

Measure C The fault zones designated in the Kern County Seismic Hazard Atlas should be considered significant geologic hazard areas. Proper precautions should be instituted to reduce seismic hazard, whenever possible in accordance with State and County regulations.

4.5: Landslides, Subsidence, Seiche, and Liquefaction

Policy 1 Determine the liquefaction potential at Sites in areas of shallow groundwater (Map Code 2.3) prior to discretionary development and determine specific mitigation to be incorporated into the foundation design, as necessary, to prevent or reduce damage from liquefaction in an earthquake.

Policy 3 Reduce potential for exposure of residential, commercial, and industrial development to hazards of landslide, land subsidence, liquefaction, and erosion.

All policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Inyokern Specific Plan

The entire Project Site is subject to the provisions of the Inyokern Specific Plan, which contains goals, policies, and standards that are compatible with those of the Kern County General Plan, but are unique to the specific needs of the Inyokern Area. The Land Use, Open Space, and Conservation Element of the Inyokern Specific Plan has the purpose of identifying physical constraints, public, residential, commercial, and industrial facilities as well as cultural and biological resources within the Plan area. The Seismic Safety and Safety Element of the Inyokern Specific Plan has the purpose of identifying hazards related to liquefaction, earthquake, flooding, and landslide within the Plan area. Both elements contain goals and policies that apply to the proposed Project, as provided below. The Inyokern Specific Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to

development such as the Project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

Land Use, Open Space, and Conservation Element; 1.1: Physical Constraints

- Policy 1 Zoning and other land use controls will be used to regulate, and prohibit, if necessary, future development when physical hazards exist.
- Policy 4 Kern County building, health, and fire codes and standards shall be strictly enforced to minimize the possibility of hazards relevant to certain physical constraints.
- Measure 4 All structural development must conform to the Uniform Building Code, as administered by Kern County, to provide an adequate level of protection from earthquake damage.

Seismic Safety and Safety Element

- Goal 1 To ensure the safety of the area residents from environmentally related hazards.
- Policy 2 Development shall consider seismic hazards during new construction and include adequate safety measures.
- Measure 1 All construction shall comply with the requirements of the Uniform Building Code (UBC) and the Uniform Fire Code (UFC) with regard to water supply, fire flow, and construction standards.
- Measure 3 All construction shall comply with the standard of the UBC with regard to seismic hazard.

All policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

Kern County Code of Building Regulations (Title 17 of the Ordinance Code of Kern County)

All construction in Kern County is required to conform to the Kern County Building Code (Chapter 17.08, Building Code, of the Kern County Code of Regulations). Kern County has adopted the California Building Code (CBC), 2025 Edition (as adopted by Ordinance No. G-9179), with some modifications and amendments. The entire County is in Seismic Zone 4, a designation previously used in the Uniform Building Code (UBC) to denote the areas of highest risk for earthquake ground motion. California has an unreinforced masonry program that details seismic safety requirements for Zone 4. Seismic provisions associated with Seismic Zone 4 have been adopted.

Chapter 17.28: Kern County Grading Code

The purpose of the Kern County Grading Code (Chapter 17.28, Building Code, of the Kern County Code of Regulations) sets forth rules and regulations to control excavation, grading and earthwork

construction, including fills and embankments; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction. Sections of the Grading Code that are particularly relevant to geology and soils are provided below.

Section 17.28.140: Erosion Control

- A. Slopes. The faces of cut-and-fill slopes shall be prepared and maintained to control erosion. This control may consist of effective planting. Protection for the slopes shall be installed as soon as practicable and prior to calling for final approval. Where cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted.
- B. Other Devices. Where necessary, check dams, cribbing, riprap, or other devices or methods shall be employed to control erosion and provide safety.
- C. Temporary Devices. Temporary drainage and erosion control shall be provided as needed at the end of each work day during grading operations, such that existing drainage channels would not be blocked. Dust control shall be applied to all graded areas and materials and shall consist of applying water or another approved dust palliative for the alleviation or prevention of dust nuisance. Deposition of rocks, earth materials or debris onto adjacent property, public roads or drainage channels shall not be allowed.

Section 17.28.150 – Drainage Retention Facilities

All drainage retention or detention facilities, along with associated conveyance systems, must be designed in accordance with the Kern County Development Standards, or the latest revision thereof.

Section 17.28.160 – Maintenance

The property owner, or any person in control of the property where grading has been performed under a permit, is responsible for maintaining all drainage structures, sumps, and protective devices shown on the approved grading plans. These features must remain in good condition and repair as a condition of the permit.

Section 17.28.170: Grading Inspection

- A. General. All grading operations for which a permit is required shall be subject to inspection by the building official. Professional inspection of grading operations and testing shall be provided by the civil engineer, soils engineer, and the engineering geologist retained to provide such services in accordance with Subsection 17.28.170(E) for engineered grading and as required by the building official for regular grading.
- B. Civil Engineer. The civil engineer shall provide professional inspection within such engineer's area of technical specialty, which shall consist of observation and review as to the establishment of line, grade, and surface drainage of the development area. If revised plans are required during the course of the work, they shall be prepared by the civil engineer.

- C. Soils Engineer. The soils engineer shall provide professional inspection within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. The soils engineer shall provide sufficient observation during the preparation of the natural ground and placement and compaction of the fill to verify that such work is being performed in accordance with the conditions of the approved plan and the appropriate requirements of this chapter. Revised recommendations relating to conditions differing from the approved soils engineering and engineering geology reports shall be submitted to the permittee, the building official and the civil engineer.
- D. Engineering Geologist. The engineering geologist shall provide professional inspection within such engineer's area of technical specialty, which shall include professional inspection of the bedrock excavation to determine if conditions encountered are in conformance with the approved report. Revised recommendations relating to conditions differing from the approved engineering geology report shall be submitted to the soils engineer.
- E. Permittee. The permittee shall be responsible for the work to be performed in accordance with the approved plans and specifications and in conformance with the provisions of this Code, and the permittee shall engage consultants, if required, to provide professional inspections on a timely basis. The permittee shall act as a coordinator between the consultants, the contractor and the building official. In the event of changed conditions, the permittee shall be responsible for informing the building official of such change and shall provide revised plans for approval.
- F. Building Official. The building official may inspect the Project at the various stages of the work requiring approval to determine that adequate control is being exercised by the professional consultants.
- G. Notification of Noncompliance. If, in the course of fulfilling their responsibility under this chapter, the civil engineer, the soils engineer, or the engineering geologist finds that the work is not being done in conformance with this chapter or the approved grading plans, the discrepancies shall be reported immediately in writing to the permittee and to the building official. Recommendations for corrective measures, if necessary, shall also be submitted.
- H. Transfer of Responsibility. If the civil engineer, the soils engineer, or the engineering geologist of record is changed during the course of the work, the work shall be stopped until: (1) the civil engineer, soils engineer, or engineering geologist has notified the building official in writing that they will no longer be responsible for the work and that a qualified replacement has been found who will assume responsibility; and (2) the replacement civil engineer, soils engineer, or engineering geologist notifies the building official in writing that they have agreed to accept responsibility for the work.

Kern County Water Quality Control Plan

Each of the nine RWQCBs adopts a Water Quality Control Plan which recognizes and reflects regional differences in existing water quality, the beneficial uses of the region's groundwater and surface waters, and local water quality conditions and problems. Water quality problems in the regions are listed in these plans, along with the causes, if they are known. Each RWQCB is to set water quality objectives that will ensure the reasonable protection of beneficial uses and the prevention of nuisance, with the understanding that water quality can be changed somewhat without unreasonably affecting beneficial uses.

The Kern County Public Works Department, Engineering Division requires the completion of an NPDES applicability form for all construction Projects disturbing 1 acre or more within Kern County. This form requires the Applicant to provide background information on construction activities. Applicants must apply for the permit under one of the following four conditions:

- All storm water is retained onsite and no storm water runoff, sediment, or pollutants from onsite construction activity can discharge directly or indirectly offsite or to a river, lake, stream, municipal storm drain, or offsite drainage facilities.
- All storm water runoff is not retained on Project Site, but does not discharge to a Water of the United States (i.e., drains to a terminal drainage facility). Therefore, a SWPPP has been developed and BMPs must be implemented.
- All storm water runoff is not retained on Project Site, and the discharge is to a Water of the United States. Therefore, a Notice of Intent (NOI) must be filed with the State Regional Water Resources Control Board prior to issuance of the building permit. Also, a SWPPP has been developed and BMPs must be implemented.
- Construction activity is between 1 and 5 acres and an Erosivity Waiver was granted by the SWRCB. BMPs must be implemented.

The 2009 Kern County General Plan addresses paleontological resources in Chapter 1 (Land Use/Conservation/Open Space Element), Section 1.10 (General Provisions), Subsection 1.10.3 (Archaeological, Paleontological, Cultural, and Historical Preservation). The below policy and implementation measure apply to paleontological resources:

Policy 25 The County will promote the preservation of cultural and historic resources which provide ties with the past and constitute a heritage value to residents and visitors.

Measure M In areas of known paleontological resources, the County should address the preservation of these resources, where feasible.

4.7.3 Impacts and Mitigation Measures

Methodology

The proposed Project's potential impacts to geology and soils have been evaluated using a variety of resources, including the Soil and Geology Report prepared for the Project by BSK Associates (Appendix K.1), the Phase 1 Environmental Project Site Assessment for the Project Site prepared by BSK Associates (Appendix J.1), the Paleontological Resources Report prepared for the Project by the Department of PaleoServices, San Diego Natural History Museum (Appendix C.1), and the Hydrology Study prepared for the Project by Quad Knopf, Inc. (Appendix E.1), and other published and background resources.

Using the aforementioned resources and professional judgment, impacts were analyzed according to CEQA significance criteria described below.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a Project could potentially have a significant adverse effect on geology and soils. A Project would have a significant adverse effect on geology and soils if it would:

- (a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death, involving: (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; (ii) Strong seismic ground shaking; (iii) Seismic-related ground failure, including liquefaction; or (iv) Landslides;
- (b) Result in substantial soil erosion or the loss of topsoil;
- (c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse;
- (d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;
- (e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater; or
- (f) Directly or indirectly destroy a unique paleontological resource or Project Site or unique geologic feature.

The CEQA threshold of significance for a significant impact to paleontological resources is reached when a Project is determined to "directly or indirectly destroy a significant paleontological resource or unique geologic feature." In general, for Projects that are underlain by paleontologically sensitive geologic units, the greater the amount of ground disturbance, the higher the potential for significant impacts to paleontological resources. For Projects that are directly underlain by geologic units with no paleontological sensitivity, there is no potential for impacts on paleontological resources unless sensitive geologic units which underlie the non-sensitive unit are also affected.

Project Impacts

Impact 4.7-1: Would the Project would directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Construction

While the Project area is located in the highly seismic Southern California region, the Project Site is not located within a State-identified Alquist-Priolo Earthquake Fault Zone. As described in this section and summarized in **Table 4.7-3**, the nearest mapped Earthquake Fault Zone to the Project

Site is the Little Lake Fault Zone, located approximately 2.6 miles to the north-northeast. The nearest active fault, the South Sierra Nevada fault, is located approximately 3.5 miles to the northwest (Jennings, 2010). Therefore, the Project Site is not anticipated to be at risk of fault rupture during construction. Construction of the Project would be subject to all applicable ordinances of the Kern County Building Code (Chapter 17.08), which includes the adopted 2022 CBC (CCR Title 24). These would ensure Project structures comply with minimum standards related to structural strength and general stability. Therefore, given the absence of any known active faults in the Project area and required compliance with the Kern County Building Code, impacts related to fault rupture during construction would be less than significant.

Operation

As stated previously, the Project Site is in a highly seismic region that could experience one or more substantive seismic events in the future. Depending on the magnitude, distance to the source, and duration of shaking, damage to the rooftop and carport canopy structures and PV modules, the operations & maintenance (O&M) building, or other ancillary facilities and injury to workers or visitors could result. However, because the proposed Project would not establish a permanent on-Project Site population, damage to these on-Project Site structures would not expose a substantial number of people to potential adverse effects due to strong seismic ground shaking.

Prior to the issuance of grading permits, the Applicant would be required to design Project infrastructure to withstand substantial ground shaking in accordance with all applicable ordinances of the Kern County Building Code (Chapter 17.08) and the current California Building Code. As described in Section 4.7.4, Mitigation Measure MM 4.7-1 requires that a geotechnical study to evaluate soil conditions and geologic hazards be performed by a qualified geotechnical engineer on the Project Site. Mitigation Measure MM 4.7-2 requires that a California geotechnical engineer be retained by the Applicant to design the Project facilities to withstand probable seismically induced ground shaking. All grading and construction onsite would adhere to the specifications, procedures, and Project Site conditions contained in the final design plans, which would be fully compliant with the seismic recommendations provided by the California-registered professional engineer in accordance with California and Kern County Building Code requirements. The required measures would encompass Project Site preparation, foundation specifications, and protection measures for buried metal. The final structural designs would be subject to approval and follow-up inspection by the Kern County Building Inspection Department. Final design requirements would be provided to the onsite construction supervisor and the Kern County Building Inspector to ensure compliance. A copy of the approved design would be submitted to the Kern County Planning and Natural Resources Department.

Further, the facilities would be constructed in accordance with all applicable codes, which require property line and public roadway setbacks that would protect the general public and onsite staff from potential hazards associated with the facilities that could result from an earthquake. Adherence to the requirements of the Kern County Building Code, the CBC, and Mitigation Measures MM 4.7-1 and MM 4.7-2 would ensure that seismic hazards would be minimized and impacts related to ground shaking would be less than significant.

Mitigation Measures: MM 4.7-1 and MM 4.7-2 would be required.

Level of Significance: With implementation of Mitigation Measures MM 4.7-1 and MM 4.7-2, impacts would be *less than significant*.

Impact 4.7-2: Would the Project would directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death, involving strong seismic ground shaking.

The levels of earthquake-induced ground motion presented in Section 4.1 of the Soil and Geology Report can be considered moderately intense to intense and structures should be designed to comply with seismic response requirements at the Project Site. Structural dynamic characteristics contained in the Kern County Code of Building Regulations and the California Building Code and State of California design standards should be incorporated into the project design.

For liquefaction and seismic settlement analyses, a PGAM range of 0.74 g (Northwest Corner) to 0.75 g (Southeast Corner) should be considered for preliminary evaluation. Final design values will require confirmation of site class through V_{s30} testing and site-specific ground motion analysis during the design-level geotechnical investigation.

As discussed above, prior to the issuance of grading permits, the Applicant would be required to design Project infrastructure to withstand substantial ground shaking in accordance with all applicable ordinances of the Kern County Building Code (Chapter 17.08) and the current California Building Code. As described in Section 4.7.4, Mitigation Measure MM 4.7-1 requires that a geotechnical study to evaluate soil conditions and geologic hazards be performed by a qualified geotechnical engineer on the Project Site. Mitigation Measure MM 4.7-2 requires that a California geotechnical engineer be retained by the Applicant to design the Project facilities to withstand probable seismically induced ground shaking. All grading and construction onsite would adhere to the specifications, procedures, and Project Site conditions contained in the final design plans, which would be fully compliant with the seismic recommendations provided by the California-registered professional engineer in accordance with California and Kern County Building Code requirements. The required measures would encompass Project Site preparation, foundation specifications, and protection measures for buried metal. The final structural designs would be subject to approval and follow-up inspection by the Kern County Building Inspection Department. Final design requirements would be provided to the onsite construction supervisor and the Kern County Building Inspector to ensure compliance. A copy of the approved design would be submitted to the Kern County Planning and Natural Resources Department.

Further, the facilities would be constructed in accordance with all applicable codes, which require property line and public roadway setbacks that would protect the general public and onsite staff from potential hazards associated with the facilities that could result from an earthquake. Adherence to the requirements of the Kern County Building Code, the CBC, and Mitigation Measures MM 4.7-1 and MM 4.7-2 would ensure that seismic hazards would be minimized and impacts related to ground shaking would be less than significant.

Mitigation Measures: MM 4.7-1 and MM 4.7-2 would be required.

Level of Significance: With implementation of Mitigation Measures MM 4.7-1 and MM 4.7-2, impacts would be *less than significant*.

Impact 4.7-3: Would the Project would directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death, involving strong seismic- related ground failure, including liquefaction.

At the Project Site, groundwater is currently deeper than 50 feet below ground surface (bgs), indicating a low potential for liquefaction. However, a design-level geotechnical investigation will be required to evaluate the potential for dry seismic settlement under the anticipated seismic loading conditions.

Mitigation Measures: MM 4.7-1 and MM 4.7-2 would be required.

Level of Significance after Mitigation: With implementation of Mitigation Measures MM 4.7-1 and MM 4.7-2, impacts would be *less than significant*.

Impact 4.7-4: Would the Project would directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death, involving landslides.

The Project Site and surrounding area are generally flat with very gentle gradients across the property. There are no significant natural or man-made slopes within or adjacent to the Project Site, and no evidence of landslides, erosion scarps, or other indicators of instability was observed during field reconnaissance. The underlying soils consist of relatively uniform alluvial deposits, which further reduce the likelihood of localized slope movement.

Based on these conditions, the potential for slope instability or slope failure at the Project Site is considered low. No additional mitigation measures related to slope stability are warranted for the proposed development.

Mitigation Measures: MM 4.7-1 and MM 4.7-2 would be required.

Level of Significance after Mitigation: With implementation of Mitigation Measures MM 4.7-1 and MM 4.7-2, impacts would be *less than significant*.

Impact 4.7-5: Would the Project would result in substantial soil erosion or the loss of topsoil.

Construction

Construction of the Project and associated improvements would involve earth-disturbing activities that could expose soils to the effects of wind or water erosion. Although the Project study area consists of relatively flat topography and would not involve substantive cut and fill operations, earthmoving and construction activities could loosen soil, and the removal of existing minimal vegetation could contribute to soil loss and erosion. A SWPPP will be prepared and implemented per the requirements of the NPDES General Construction Permit Program. The SWPPP would detail that existing vegetation and topography are to be preserved to the maximum extent possible. The SWPPP would also specify various types of BMPs including erosion control BMPs to prevent soil from moving offsite; all temporary erosion control measures required by the Kern County

Grading Code (Chapter 17.28.140) would be incorporated into the SWPPP (Mitigation Measure MM 4.7-3). Also, per Mitigation Measure MM 4.7-4, the Project would be required to submit grading plans accompanied by a soils engineering report, engineering geology report, and drainage calculations pursuant to the Kern County Grading Code (Section 17.28.070) to the Kern County Engineering and Survey Services Department in order to obtain required grading permits. Compliance with Mitigation Measure MM 4.7-4 would ensure that excessive grading does not occur. With implementation of Mitigation Measures MM 4.7-3 and MM 4.7-4, construction-phase impacts related to erosion would be less than significant.

Operation

Project operations would include the periodic cleaning of the rooftop and carport solar panels with water; however, this is not expected to result in soil erosion because of the infrequency of these activities, the limited volumes of water involved, and the fact that runoff from built surfaces would be directed to the onsite stormwater retention pond. Project operations would not require ongoing ground disturbance. As a result, Project operation would have a less-than-significant impact with relation to soil erosion.

Mitigation Measures: MM 4.7-3 and MM 4.7-4 would be required.

Level of Significance: With implementation of Mitigation Measures MM 4.7-3 and MM 4.7-4, impacts would be *less than significant*.

Impact 4.7-6: Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

The Project Site and surrounding area are generally flat with very gentle gradients across the property. There are no significant natural or man-made slopes within or adjacent to the Project Site, and no evidence of landslides, erosion scarps, or other indicators of instability was observed during field reconnaissance. The underlying soils consist of relatively uniform alluvial deposits, which further reduce the likelihood of localized slope movement. Based on these conditions, the potential for slope instability or slope failure at the Project Site is considered low. No additional mitigation measures related to slope stability are warranted for the proposed development.

Zones of Required Investigation, referred to as Seismic Hazard Zones in California Code of Regulations Article 10, Section 3722, are areas shown on official Seismic Hazard Zone Maps where site investigations are required to determine the need for mitigation of potential liquefaction and earthquake-induced landslide ground displacements.

As shown on Figure 10 of the Soils and Geology Report, there are no mapped Seismic Hazard Zones within the subject property in Inyokern, California. The nearest mapped liquefaction hazard zone is located in Rosamond approximately 60 miles southwest of the Project Site. Based on current mapping, no regulatory requirements for liquefaction or earthquake-induced landslide mitigation apply to the proposed development.

Based on this review, the proposed development complies with the requirements of the Seismic Hazard Mapping Act. No additional mitigation measures related to liquefaction or earthquake-induced landslides are warranted at this time.

Liquefaction potential on the Project Site is low (but not non-existent). Additionally, the Soils and Geology Report prepared for this Application concluded that the potential for other geologic hazards related to liquefaction, such as lateral spreading, are therefore also considered low. The subject property in Inyokern is located within the Indian Wells Valley Groundwater Basin, an arid region that relies heavily on groundwater for municipal and agricultural use. Although groundwater levels in the basin have declined over time, documented subsidence has primarily occurred in the southern Antelope Valley and portions of the San Joaquin Valley, where pumping rates and fine-grained aquifer systems are more pronounced. According to USGS and CDWR data, no significant subsidence zones have been mapped in the immediate vicinity of Inyokern, and the Project Site is not located within an area currently identified as susceptible to subsidence from petroleum or groundwater withdrawal. Therefore, subsidence due to groundwater withdrawal is not expected to impact the Project Site under current conditions.

Preliminary evaluation indicates that soils at the Project Site may have some potential for hydrocompaction, which will require further assessment. Hydrocompaction is the collapse and consolidation of loose, dry, low-density soils when they become saturated with water. This process is common in arid regions where wind-deposited sediments or mudflow materials were originally placed in a moisture-deficient state. When these soils are thoroughly wetted, they can undergo significant settlement. A detailed geotechnical investigation will be performed once the final layout of structures is defined to confirm the presence and extent of collapsible soils. If hydrocompaction-prone soils are encountered, mitigation measures may include over-excavation and recompaction of the affected materials or designing foundations to extend below the hydrocompaction zone. These approaches help reduce the risk of differential settlement and maintain structural integrity.

Mitigation Measures: MM 4.7-1 and MM 4.7-2 would be required.

Level of Significance: With implementation of Mitigation Measures MM 4.7-1 and MM 4.7-2, impacts would be *less than significant*.

Impact 4.7-7: Would the Project Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) [2025 California Building Code], creating substantial direct or indirect risks to life or property.

Near-surface soils observed at the Project Site and mapped by the United States Department of Agriculture are primarily granular alluvial fan deposits with low clay content. These soil types generally indicate a low potential for expansive behavior. According to USDA soil survey data for Kern County and the Indian Wells Valley, the dominant soil series in the area exhibit low shrink and swell ratings, meaning expansive soils are not considered a significant hazard at this location.

Although the likelihood of expansive soils at the Project Site is low, a design-level geotechnical investigation will be required to confirm these conditions. Laboratory testing such as Atterberg

limits, free swell tests, and moisture-density relationships will be performed to verify the absence of highly plastic clays.

If expansive soils are encountered during detailed investigation, mitigation measures may include moisture control through proper Project Site drainage and landscaping, use of moisture barriers beneath slabs, deepened foundations to bypass active soil zones, or over-excavation and replacement with non-expansive engineered fill. These measures help reduce the risk of differential movement and maintain structural integrity.

Mitigation Measures: MM 4.7-1 and MM 4.7-2 would be required.

Level of Significance: With implementation of Mitigation Measures MM 4.7-1 and MM 4.7-2, impacts would be *less than significant*.

Impact 4.7-8: Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

As indicated in Section 4.18, *Utilities and Service Systems*, the Project is proposed to be annexed into the Inyokern Community Services District (CSD) for domestic water and sanitary sewer service. The Inyokern CSD has provided executed Will-Serve Letter (April 2, 2026) confirming its ability to provide sufficient water supply and wastewater services for construction and facility operations. With respect to wastewater service, the CSD's will-serve letter identifies a preliminary average dry weather flow of approximately 6,670 gpd and indicates that a peak wet weather flow factor of approximately 2.5 times average dry weather flow would be used for pipeline sizing. The CSD identified sanitary and domestic sources, including restrooms, break rooms, and locker facilities, as the primary wastewater stream. The CSD also identified cooling tower blowdown as a secondary wastewater stream that may require pretreatment review and noted that HVAC condensate volumes would be determined during final engineering. The CSD will-serve letter identifies the discharge volumes and the conditions under which wastewater would be accepted by the District, consistent with the requirements of 40 Code of Federal Regulations Part 403.

Therefore, the Project will not use septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Mitigation Measures: No mitigation is required.

Significance of Impacts: *No impact*.

Impact 4.7-9: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Construction

Direct impacts to paleontological resources occur when earthwork operations cut into the geologic units within which fossils are buried and physically destroy the fossil remains. As such, only those earthwork operations that will disturb potentially fossil-bearing geologic units have the potential to significantly impact paleontological resources. As described above, potentially fossil-bearing

geologic units are those rated with a very high, high, or moderate potential. Taking a conservative approach, geologic units with an unknown potential are also considered to be potentially fossil-bearing until proven otherwise. Although impact avoidance is possible through relocation of a proposed action, paleontological monitoring during construction is typically recommended to reduce any negative impacts to paleontological resources to less than significant levels.

As discussed in the Paleontological Resource Assessment conducted for the Project (Appendix C.1), published geologic mapping reports that the Project Site and immediately surrounding area are underlain by Holocene-age alluvial deposits (assigned a low paleontological potential) at the surface. However, it is assumed that these Holocene deposits are underlain by Pleistocene-age alluvial deposits (assigned a high paleontological potential) at a depth that is conservatively estimated to be as shallow as five feet bgs. Any impacts to paleontological resources are only likely to occur during excavations at the Project Site that will disturb alluvial deposits of Pleistocene age. Therefore, only excavations that will extend greater than about five feet bgs are considered to have the potential to impact paleontological resources (see Figure 3 of the Assessment).

Specific construction details about the extent and dimensions of earthwork that will eventually take place within the Project Site have not been finalized at this time. Therefore, only a general impact analysis, using the five-foot bgs depth threshold described above, can be completed. Prior to the start of earthwork, the Project Paleontologist shall review final grading and utility plans to confirm monitoring locations and depth thresholds in accordance with MM 4.7-5 through MM 4.7-8. Project components that will presumably require some degree of earthwork extending more than five feet bgs include, but are not limited to, the following:

- Mass grading of the data center facility, new substation, and BESS Project Site, which may extend up to 10 feet bgs;
- Grading within the SCE substation, which may extend up to 10 feet bgs;
- Augering for an on-Project Site groundwater well;
- Excavation of pole foundations for the interconnection transmission line, which typically extends at least thirty feet bgs;
- Excavation of at least one stormwater retention basin, which may extend up to 10 feet bgs; and
- Trenching for subgrade utilities and/or telecommunications, which typically extends six to seven feet bgs.

Mass grading, excavation for foundations and basins, and trenching can all be feasibly mitigated for impacts to paleontological resources by monitoring earthwork operations. However, augering for the on-Project Site groundwater well may not be feasible to mitigate for paleontological resources, depending on the diameter of the hole and the augering method used. In general, small-diameter augering using a drill bit measuring less than approximately 18 inches in diameter that produces only chips of rock is unlikely to produce identifiable macrofossil remains. Additional Project components that are not anticipated to require excavation impacting previously undisturbed deposits include placement of fill materials.

The loss of any identifiable fossil that could yield information important to prehistory, or that embodies the distinctive characteristics of a type of organism, environment, period of time, or

geographic region, would be a significant environmental impact. Direct impacts to paleontological resources primarily concern the potential destruction of nonrenewable paleontological resources and the loss of information associated with these resources. This includes the unauthorized collection of fossil remains. If potentially fossiliferous bedrock or surficial sediments are disturbed, the disturbance could result in the destruction of paleontological resources and subsequent loss of information (significant impact). At the Project-specific level, direct impacts can be mitigated to a less-than-significant level through the implementation of paleontological mitigation.

Operation

The Project would not involve ongoing ground disturbance during operations. No additional impacts to paleontological resources are anticipated during the operational phase. Operational impacts to paleontological resources would be less than significant.

Mitigation Measures: Implementation of MM 4.7-5 through MM 4.7-8 would be required.

Level of Significance: With implementation of Mitigation Measures MM 4.7-5 through MM 4.7-8, impacts would be *less than significant*.

4.7.4 Mitigation Measures

This section presents the compliance cross-reference table for CEC SPPE Appendix B requirements (Table 4.7-A) followed by the full text of mitigation measures applicable to geology, soils, and paleontological resources.

Table 4.7-A CEC SPPE Appendix B Compliance Cross-Reference — Geology, Soils, and Paleontological Resources

Ref.	Appendix B Requirement	Section / Table	Status
(g)(15) Soils — Setting Requirements			
(g)(15)(A)	Project Site soil types, classifications, and characteristics	Section 4.7.1	✓ Addressed
(g)(15)(B)	Expansive soils assessment	Section 4.7.1.2	✓ Addressed
(g)(15)(C)	Liquefaction and lateral spreading potential	Section 4.7.1.2	✓ Addressed
(g)(15) Soils — Impact / Disclosure Requirements			
(g)(15)(D)	Soil erosion and loss of topsoil impacts	Section 4.7.3, Impact 4.7-2	✓ Addressed
(g)(15)(E)	Unstable soils / geologic unit impacts	Section 4.7.3, Impact 4.7-3	✓ Addressed
(g)(16) Paleontologic Resources — Setting Requirements			
(g)(16)(A)	Paleontological sensitivity of Project Site geology	Section 4.7.1.1 & 4.7.1.2	✓ Addressed
(g)(16)(B)	Records search results and known localities	Section 4.7.1.2	✓ Addressed

Ref.	Appendix B Requirement	Section / Table	Status
(g)(16) Paleontologic Resources — Impact / Disclosure Requirements			
(g)(16)(C)	Impacts to paleontological resources during construction	Section 4.7.3, Impact 4.7-9	✓ Addressed
(g)(16)(D)	Paleontological mitigation program requirements	Section 4.7.4, MM 4.7-5 through MM 4.7-8	✓ Addressed
(g)(17) Geological Hazards — Setting Requirements			
(g)(17)(A)	Fault rupture hazard zones and proximity to active faults	Section 4.7.1.1 & 4.7.1.2	✓ Addressed
(g)(17)(B)	Seismic hazard zones (liquefaction and landslides)	Section 4.7.1.1 & 4.7.1.2	✓ Addressed
(g)(17)(C)	Groundwater conditions	Section 4.7.1.2	✓ Addressed
(g)(17) Geological Hazards — Impact / Disclosure Requirements			
(g)(17)(D)	Fault rupture and seismic ground shaking impacts	Section 4.7.3, Impact 4.7-1	✓ Addressed
(g)(17)(E)	Geotechnical investigation requirements	Section 4.7.4, MM 4.7-1	✓ Addressed
(g)(17)(F)	Seismic design compliance	Section 4.7.4, MM 4.7-2	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Sections (g)(15), (g)(16), and (g)(17). All criteria addressed in this chapter; full technical disclosure in the Soils and Geology Report (Appendix K.1), Paleontological Resources Report (Appendix C.1), and Hydrology Study (Appendix E.1).

Geologic Resources and Soils Mitigation Measures

MM 4.7-1 Prior to the issuance of building or grading permits for the Project, the Applicant shall conduct a full geotechnical study to evaluate soil conditions and geologic hazards on the Project Site and submit it to the Kern County Public Works Department for review and approval.

- A. The geotechnical study must be signed by a California-registered and licensed professional geotechnical engineer or engineering geologist and must include, but not be limited to, the following:
- Location of fault traces and potential for surface rupture and groundshaking potential;
 - Maximum considered earthquake and associated ground acceleration for design;
 - Potential for seismically induced liquefaction, landslides, differential settlement, and unstable soils;
 - Stability of any existing or proposed cut-and-fill slopes;
 - Collapsible or expansive soils;
 - Foundation material type;
 - Potential for wind erosion, water erosion, sedimentation, and flooding;

- Location and description of unprotected drainage that could be impacted by the proposed development; and
 - Recommendations for placement and design of facilities, foundations, and remediation of unstable ground.
- B. The geotechnical study shall be performed pursuant to Chapters 16 and 18 of the 2025 California Building Code (note that the 2025 CBC (effective January 1, 2026) updates, modifies, and adds new provisions to the 2022 CBC, primarily by adopting the 2024 International Building Code (IBC) and ASCE 7-22 standards); California Geological Survey Special Publication 117A; the American Society of Civil Engineers (ASCE) 7-22 Standard; and California Geological Survey Note 49. Final Project design and construction shall incorporate the recommendations of the geotechnical study. The Applicant shall not locate Project facilities on or immediately adjacent to an active fault trace. If a fault trace is identified on or near the Project Site, all structures shall be offset at least 100 feet from any mapped fault trace. Alternatively, a detailed fault tracing investigation, including trenching, may be performed to accurately locate the fault trace(s) and evaluate the risk of fault rupture; accurate setback distances shall be determined based on those findings.
- C. The Kern County Public Works Department shall evaluate any final facility siting design developed prior to the issuance of any building or grading permits to verify that geological constraints have been avoided.

MM 4.7-2 Prior to the issuance of grading permits, the Applicant shall retain a California registered and licensed geotechnical engineer to design the Project facilities to withstand probable seismically induced ground shaking at the Project Site. All grading and construction onsite shall adhere to the specifications, procedures, and Project Site conditions contained in the final design plans, which shall be fully compliant with the seismic recommendations of the California-registered professional engineer and state and local building codes, as well as California Geological Survey Special Publication 117A.

- (a) The procedures and Project Site conditions shall encompass Project Site preparation, foundation specifications, and protection measures for buried metal.
- (b) The final structural design shall be subject to approval and follow-up inspection by the Kern County Building Inspection Department. Final design requirements shall be provided to the onsite construction supervisor and the Kern County Building Inspector to ensure compliance. A copy of the approved design shall be submitted to the Kern County Planning and Natural Resources Department.

MM 4.7-3 The construction contractor shall incorporate Best Management Practices consistent with National Pollutant Discharge Elimination System General Construction Permit Program for all construction Projects that would not retain all stormwater onsite and the Kern County Grading Code. The Applicant shall

prepare an Erosion and Sedimentation Control Plan as well as a Stormwater Pollution Prevention Plan. The plan shall be prepared by a Qualified Stormwater Pollution Prevention Plan Developer and submitted for review and approval by the applicable Regional Water Quality Control Board. The Stormwater Pollution Prevention Plan Best Management Practices shall include, but not be limited to, the following:

- Scheduling to avoid construction during rain events to the maximum extent possible;
- Preservation of existing vegetation and topography to the maximum extent practicable;
- Stabilized construction entrances and exits;
- Erosion control (including all pertinent temporary erosion control practices as specified in Chapter 17.28.140 of the Kern County Grading Code), such as mulching, temporary drains and gullies, sandbag barrier, geotextiles and mats, silt fences, brush or rock filters, earth dikes, straw bale barriers, and sediment traps;
- Sediment control;
- Waste management;
- Good housekeeping; and
- Post-construction Project Site stabilization.

Prior to initial construction mobilization, preconstruction surveys shall be performed and sediment and erosion controls shall be installed in accordance with the approved Stormwater Pollution Prevention Plan. A copy of the approved Stormwater Pollution Prevention Plan shall be submitted to the Kern County Planning and Natural Resources Department.

MM 4.7-4 The Applicant shall limit grading to the minimum area necessary for construction. Prior to the initiation of construction, the Applicant shall retain a California registered and licensed professional engineer to submit final grading earthwork and foundation plans to the Kern County Public Works for approval.

Paleontological Mitigation Measures

The mitigation measures below are formulated in accordance with industry standards (e.g., SVP, 2010, 2025; Murphey et al., 2019).

MM 4.7-5 Prior to the start of earthwork, the Applicant shall retain a qualified Project Paleontologist to oversee the paleontological mitigation program and a professional repository shall be designated to receive any recovered fossils. The Project Paleontologist shall have an advanced academic degree (M.A., M.S., or Ph.D.) with an emphasis in paleontology and shall have demonstrated knowledge of local paleontology and geology, as well as at least two years of demonstrated professional experience with paleontological mitigation procedures and techniques at the level of field supervisor, under the direct supervision of a qualified Project

Paleontologist. The repository shall be a recognized paleontological specimen repository (e.g., an American Alliance of Museums-accredited museum or university) with a permanent curator and be capable of storing fossils in a facility with adequate security against theft, loss, damage, fire, pests, and adverse climate conditions (e.g., the Natural History Museum of Los Angeles County, the San Bernardino County Museum, the Kern County Buena Vista Museum of Science and Natural History, the San Diego Natural History Museum, or the University of California Museum of Paleontology). Selection of the repository shall be coordinated with the Kern County Buena Vista Museum of Science and Natural History (Bakersfield) and all information obtained shall be made available to them.

MM 4.7-6 Prior to commencement of earthwork activities, the Project Paleontologist or designated Field Monitor shall attend appropriate pre-construction meetings, provide Worker Environmental Awareness Program (WEAP) training coordinated with archaeological awareness materials for the potential identification of paleontological finds by construction personnel, and attend other relevant meetings or conference calls (e.g., daily tailboards) in order to consult with Project manager(s) and/or any excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. Field Monitors shall have academic training (B.A. or B.S.) with an emphasis in paleontology or demonstrated equivalent experience (minimum of two years of cumulative professional or nonprofessional work in laboratory, preparation, curation, or field work related to paleontology and documented self-taught knowledge of the discipline of paleontology). The Field Monitor, under the supervision of the Project Paleontologist, shall be on-Project Site on a full-time basis to inspect mitigable excavations extending more than five feet below ground surface (bgs). If the initial results of monitoring indicate that only Holocene-age alluvial deposits are being impacted at this, and greater, depths, monitoring may be scaled back to spot checks or may focus solely on earthwork extending more than 10 feet bgs, at the discretion of the qualified Project Paleontologist. Because of the potential for the recovery of microvertebrate fossil remains (e.g., isolated teeth of small mammals) from Pleistocene-age older alluvium, collection and test washing of bulk sedimentary matrix samples shall be implemented as a monitoring technique. The Field Monitor shall take appropriate field notes and photographs to collect and document stratigraphic and paleontological data.

MM 4.7-7 If fossils are discovered, they shall be salvaged by the Field Monitor. In most cases this fossil salvage can be completed in a short period of time (e.g., minutes to hours). In the event that fossils are unearthed during a period when a Field Monitor is not on Project Site (an inadvertent discovery), earthwork within the vicinity of the discovery Project Site shall temporarily halt and the Project Paleontologist shall be contacted to evaluate the significance of the discovery. The Kern County Planning and Natural Resources Department and the Kern County Buena Vista Museum of Science and Natural History shall be notified within 24 hours of any such discovery. If the discovery is determined to be significant, the fossils shall be salvaged by the Field Monitor. Salvaged fossil remains shall be cleaned, repaired,

sorted, identified, and cataloged as part of the mitigation program. Fossil preparation may also include screen washing of bulk sedimentary matrix samples for microvertebrate fossil recovery or other laboratory analyses, if applicable. Fossil preparation and curation activities may be conducted at the laboratory of the contracted Project Paleontologist (if so equipped) and/or at the designated fossil repository and shall follow the standards of the designated repository. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be donated to the designated repository. Curation of the fossils shall be accompanied by financial support from the Project owner for initial specimen storage (e.g., purchase of storage cabinets, storage drawers, and curatorial supplies).

- MM 4.7-8** A final summary report shall be completed upon completion of ground-disturbing activities that outlines the results of the mitigation program. This report will include discussions of the methods used, stratigraphic section(s) exposed, and significance of recovered fossils (if any). If fossils are recovered, it will include repository accession numbers and curation confirmation. This report shall be submitted to the lead agency, California Energy Commission, and the designated repository (if fossils are recovered).

4.7.5 CEC SPPE Appendix B — Additional Geology, Soils, and Paleontological Resources Disclosure Requirements

This section provides the additional geology, soils, and paleontological resources disclosure information required by CEC SPPE Appendix B, Sections (g)(15) (Soils), (g)(16) (Paleontologic Resources), and (g)(17) (Geological Hazards and Resources). This information supplements the CEQA impact analysis provided in Sections 4.7.1 through 4.7.4 above. Each of these Appendix B requirements is addressed in the sub-sections below.

Soils - Appendix B (g)(15)

Appendix B, Section (g)(15) requires disclosure of Project Site soil types, classifications, characteristics, expansive soil conditions, and liquefaction potential. The Project Site is underlain by Quaternary alluvial fan deposits consisting primarily of gravelly sandy loam and fine sandy loam soils (USDA Typic Torriorthents and Typic Haplargids series, respectively). Detailed soil characteristics are provided in Table 1 in Section 4.7.1.2. Near-surface soils exhibit low clay content and low expansive potential. Groundwater depths of 210–292 feet bgs across the Project Site indicate a low potential for liquefaction, as confirmed by the Soils and Geology Report (Appendix K.1). A design-level geotechnical investigation will be required prior to grading permit issuance per MM 4.7-1.

Paleontologic Resources — Appendix B (g)(16)

Appendix B, Section (g)(16) requires disclosure of paleontological sensitivity and the results of institutional records searches. The Project Site is underlain at the surface by Holocene-age alluvial deposits with low paleontological sensitivity. Pleistocene-age alluvial deposits with high

paleontological potential are estimated to begin at approximately five feet bgs. Institutional records searches of the NHMLA, SBCM, and SDNHM identified no fossil localities within one mile of the Project Site. All known localities in the region are associated with Pleistocene lacustrine sediments of pluvial China Lake, located 11–17 miles northeast of the Project Site. Full records search results are provided in the Paleontological Resources Report (Appendix C.1). Mitigation Measures MM 4.7-5 through MM 4.7-8 require the Applicant to retain a qualified Project Paleontologist to monitor all excavations extending more than five feet bgs. Repository selection shall be coordinated with the Kern County Buena Vista Museum of Science and Natural History (Bakersfield), and the Kern County Planning and Natural Resources Department shall be notified within 24 hours of any inadvertent fossil discovery.

Geological Hazards and Resources — Appendix B (g)(17)

Appendix B, Section (g)(17) requires disclosure of fault rupture hazard zones, seismic hazard zones, and groundwater conditions. The Project Site is not located within an Alquist-Priolo Earthquake Fault Zone. The nearest mapped EFZ (Little Lake Fault Zone) is approximately 2.6 miles to the north-northeast. No Seismic Hazard Zones for liquefaction or earthquake-induced landslides are mapped at the Project Site. The nearest mapped liquefaction hazard zone is approximately 60 miles southwest in Rosamond. Groundwater depths range from approximately 210 to 292 feet bgs based on nearby well records. Full geological hazard assessments are provided in the Soils and Geology Report (Appendix K.1), with fault zone distances summarized in **Table 4.7-3**. Seismic design requirements are addressed through MM 4.7-1 and MM 4.7-2.

4.7.6 Cumulative Setting, Impacts and Mitigation Measures

Impacts of the Project would be cumulatively considerable if they would have the potential to combine with similar impacts of other past, present, or reasonably foreseeable Projects. Cumulative Projects listed in the Cumulative Projects and Cumulative Impacts Analysis (Appendix N.3) would also be subject to similar seismic hazards and potential geologic instability. However, the effects of these Projects are not of a nature to cause cumulatively significant effects from geologic impacts or on soils because such impacts are Project Site specific and would only have the potential to combine with impacts of the Project if they occurred in the same location as the Project. None of the cumulative Projects would be located on the Project Site.

Similar to the Project, other Projects in the area would be required to adhere to the same California and Kern County Building Codes which would reduce the risk to people and property to less-than-significant levels. While future seismic events cannot be predicted, adherence to all federal, State, and local programs, requirements and policies pertaining to building safety and construction would limit the potential for injury or damage to a less-than-significant level. Therefore, the Project, combined with past, present, and other foreseeable development in the area, would not result in a cumulatively significant impact by exposing people or structures to risk related to geologic hazards, soils, and/or seismic conditions. Therefore, the Project would result in less-than-significant cumulative impacts related to geology and soils.

Development of the proposed Project, combined with other foreseeable Projects in the region, would result in localized changes to landforms and temporary exposure of workers and structures to regional geologic hazards. However, these hazards would be addressed through Project Site-specific geotechnical investigations and implementation of recommendations during design and construction. Each Project in the area is required to comply with applicable state and county building codes, grading regulations, and CEQA mitigation measures for geology and soils.

Because geologic and soil-related impacts are mitigated at the Project level through engineering design, grading standards, and erosion control measures, the cumulative effect of regional development on geologic hazards is considered less than significant.

Cumulative impacts to paleontological resources are not anticipated because significant fossils are rare, nonrenewable, and mitigation measures require salvage and curation, thereby preserving scientific value even if discovered. Similarly, any Projects in the area that may be underlain by similar paleontologically sensitive geologic formations could have, or would have had, impacts on paleontological resources that, when considered together, could be significant. Given similarities in geologic formations, this area is expected to contain similar types of paleontological resources for all Projects in the area. Development of the proposed Project, in combination with other Projects in the area, has the potential to contribute to a cumulatively significant paleontological resources impact due to the potential loss of paleontological resources unique to the region. However, mitigation measures are included in this Application to reduce potentially significant Project impacts to paleontological resources during construction of the proposed Project. Implementation of these mitigation measures would reduce potential impacts to paleontological resources to a less-than-significant level.

Mitigation Measures: Implementation of MM 4.7-1 through MM 4.7-8 would be required.

Level of Significance: With implementation of the identified mitigation measures, cumulative impacts would be *less than significant*.

4.8 GREENHOUSE GAS EMISSIONS (GHG)

Introduction

This section of the Application describes the affected environment and regulatory setting relating to greenhouse gases (GHGs) for the Project. This section also describes the impacts associated with GHGs that would result from implementation of the Project, and, as necessary, mitigation measures that would reduce these impacts.

Information in this section is based on the Project Description, the GHG section of the Air Quality Impact & GHG Analysis (Appendix F.1, AQIA), the information and analysis included in Section 4.6, Energy, and the Environmental Sustainability Plan and Best Management Practices prepared for the Project (Appendix O.1). The impact assessment for the Project is also based upon a review of relevant literature and technical reports that include, but are not limited to, information and guidelines by the California Air Resources Board (CARB), the United States Environmental Protection Agency (USEPA), the Eastern Kern Air Pollution Control District (EKAPCD), and the applicable provisions of the California Environmental Quality Act (CEQA).

The AQIA was prepared pursuant to the EKAPCD's Guidelines for Implementation of the California Environmental Quality Act of 1970 (EKAPCD 1999), EKAPCD Policy, "Addendum to CEQA Guidelines Addressing GHG Emission Impacts for Stationary Source Projects When Serving As Lead CEQA Agency" (EKAPCD 2012), the California Environmental Quality Act (CEQA) (Public Resources Code 21000 to 21189) and the CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387). The AQIA also meets the requirements and is consistent with California Energy Commission Appendix B (Application for Small Power Plant Exemption), Section (g)(8)(A-K).

CEC SPPE Appendix B requirements applicable to this resource area are addressed in Section 4.8.5 of this chapter.

CEC SPPE Appendix B — Section (g)(8) Applicability

The following requirements are set forth verbatim from California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(8) (effective July 20, 2023):

(g)(8)(A) The information necessary for the air pollution control district where the project is located to complete a Determination of Compliance.

(g)(8)(B) The heating value and chemical characteristics of the proposed fuels, the stack height and diameter, the exhaust velocity and temperature, the heat rate and the expected capacity factor of the proposed facility.

(g)(8)(C) A description of the control technologies proposed to limit the emission of criteria pollutants.

(g)(8)(D) A description of the cooling system, the estimated cooling tower drift rate, the rate of water flow through the cooling tower, and the maximum concentrations of total dissolved solids.

(g)(8)(E) The emission rates of criteria pollutants and greenhouse gases (CO₂, CH₄, N₂O, and SF₆) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all on-site secondary emission sources.

(g)(8)(F)(i) A description of typical operational modes, and start-up and shutdown modes for the proposed project, including the estimated frequency of occurrence and duration of each mode, and estimated emission rate for each criteria pollutant during each mode.

(g)(8)(F)(ii) A description of the project's planned initial commissioning phase, which is the phase between the first firing of emissions sources and the commercial operations date, including the types and durations of equipment tests, criteria pollutant emissions, and monitoring techniques to be used during such tests.

(g)(8)(G) The ambient concentrations of all criteria pollutants for the previous three years as measured at the three Air Resources Board certified monitoring stations located closest to the project site, and an analysis of whether this data is representative of conditions at the project site.

(g)(8)(H) One year of meteorological data collected from either the Federal Aviation Administration Class 1 station nearest to the project or from the project site, or meteorological data approved by the California Air Resources Board or the local air pollution district.

(g)(8)(I) An evaluation of the project's direct and cumulative air quality impacts, including: (i) a screening level modeling analysis of direct criteria pollutant impacts from construction; (ii) a screening level modeling analysis of direct criteria pollutant impacts during typical operation and start-up/shutdown modes; (iii) a protocol for cumulative air quality impacts analysis; and (iv) an air dispersion modeling analysis of the impacts of the initial commissioning phase emissions.

(g)(8)(J) If an emission offset strategy is proposed to mitigate the project's impacts under subsection (g)(1), provide: (i) the quantity of offsets or emission reductions needed to satisfy air permitting requirements; and (ii) potential offset sources, including location and quantity of emission reductions.

(g)(8)(K) A detailed description of the mitigation, if any, which an applicant may propose, for all project impacts from criteria pollutants that currently exceed state or federal ambient air quality standards, but are not subject to offset requirements under the district's new source review rule.

All Section (g)(8) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.8.1–4.8.4. The Appendix B supplemental disclosure is provided in Section 4.8.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.8-A, immediately preceding Section 4.8.4.

4.8.1 Environmental Setting

GHGs and climate change are a cumulative global issue. CARB and USEPA regulate GHG emissions within the State of California and the United States, respectively. While CARB has the primary regulatory responsibility within California for GHG emissions, local agencies can also adopt policies for GHG emission reduction. CARB has divided California into regional air basins. The project site is located in the northwestern portion of the Mojave Desert Air Basin (MDAB) and is under the jurisdiction of the Eastern Kern Air Pollution Control District (EKAPCD).

Greenhouse Gases

GHGs refer to gases that absorb and re-emit infrared radiation in the atmosphere. Many chemical compounds found in Earth's atmosphere act as GHGs, which allow sunlight to enter the atmosphere freely. When sunlight strikes Earth's surface, some of it is reflected back toward space as infrared radiation (heat). GHGs absorb this infrared radiation and trap the heat in the atmosphere. Over time, the amount of energy sent from the sun to Earth's surface should be about the same as the amount of energy radiated back into space, leaving the temperature of Earth's surface roughly constant. Many gases exhibit these "greenhouse" properties. Some of them occur in nature (water vapor, carbon dioxide, methane, and nitrous oxide), while others are exclusively human-made (e.g., gases used for aerosols). The principal GHGs are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs), are listed below (USEPA, 2020).

- **Carbon dioxide:** CO₂ enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and chemical reactions (e.g., the manufacture of cement). CO₂ is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- **Methane:** CH₄ is emitted during the production and transport of coal, natural gas, and oil. CH₄ emissions also result from livestock and agricultural practices and the decay of organic waste in municipal solid waste landfills.
- **Nitrous oxide:** N₂O is emitted during agricultural and industrial activities and during combustion of fossil fuels and solid waste.
- **Sulfur hexafluoride:** SF₆ is a colorless, odorless, nontoxic, nonflammable gas. SF₆ is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity, including equipment such as electrical circuit breakers, which may be used for the Project. The California Climate Action Registry (Registry) lists SF₆ as a potential source of fugitive emissions from electrical transmission and distribution equipment. Fugitive emissions are unintentional leaks of GHGs from equipment such as joints, seals, and gaskets.

- **Fluorinated gases:** HFCs, PFCs, and SF₆ are synthetic, powerful climate-change gases emitted from a variety of industrial processes. Fluorinated gases are often used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in minute quantities, but because they are potent climate-change gases, they are sometimes referred to as high Global Warming Potential (GWP) gases.

Because different GHGs have different GWPs and CO₂ is the most common reference gas for climate change, GHG emissions are often quantified and reported as CO₂ equivalents (CO₂e). For example, SF₆ is a GHG commonly used in the utility industry as an insulating gas in circuit breakers and other electronic equipment. SF₆, while comprising a small fraction of the total GHGs emitted annually worldwide, is a much more potent GHG with 23,500 times the GWP as CO₂. Therefore, an emission of 1 metric ton (MT) of SF₆ could be reported as an emission of 23,500 MT of CO₂e (IPCC, 2014). Large emissions sources are reported in million MT of CO₂e (MMT CO₂e).

The major concern with GHGs is that increases in GHG concentrations in the atmosphere are causing global climate change, which is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change and the extent of the impacts attributable to GHGs from human activities, most in the world-wide scientific community agree that there is a direct link between increased emissions of GHGs and long-term global temperature increases (i.e., global warming).

Greenhouse Gas Emissions Inventories

California's annual statewide greenhouse gas (GHG) emission inventory is an important tool for establishing historical emission trends and tracking California's progress in reducing GHGs. In concert with data collected through various California Global Warming Solutions Act (AB 32) programs, the GHG inventory is a critical piece in demonstrating the state's progress in achieving the statewide GHG target. The inventory provides estimates of anthropogenic GHG emissions within California, as well as emissions associated with imported electricity; natural sources are not included in the inventory. CARB is responsible for maintaining and updating California's GHG Inventory per H&SC section 39607.4.

The inventory includes estimates for carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases with high global warming potentials (High-GWP) which includes hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃). It uses an inventory scope and framework consistent with international and national GHG inventory practices. An updated emission inventory is published annually to include additional years and improved estimation methods.

In 2023, emissions from statewide emitting activities were 360.4 MMTCO_{2e}, 11.2 MMTCO_{2e} (3.0%) lower than 2022 levels. Since the peak level in 2004, California's GHG emissions have generally followed a decreasing trend. In 2014, statewide GHG emissions dropped below the 2020 GHG Limit and have remained below the Limit since that time.

Overall trends in the Inventory continue to demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross state product (GSP)) is declining. From 2000 to 2023, the carbon intensity of California's economy decreased by 56.6% while the GSP increased by 81.2%. California's GSP increased 2.1% from 2022 to 2023. Emissions per GSP declined by 5.0% from 2022 to 2023.

Overview of Emissions Trends by Sector

- **Transportation:** The transportation sector remains the largest source of GHG emissions in the state. Direct emissions from vehicle tailpipes, intrastate aviation, and other transportation sources account for 37.1% of statewide emissions in 2023. Emissions from this sector decreased by 6.5 MMTCO_{2e} (4.6%) compared to 2022, primarily due to a greater share of diesel used for on-road transportation being produced from non-fossil resources. When upstream emissions from oil extraction, petroleum refining, and oil pipelines in California are included, transportation is responsible for 46.4% of statewide emissions in 2023.
- **Electricity:** Emissions from the electricity sector account for 15.9% of the Inventory in 2023. Emissions from this sector decreased by 2.5 MMTCO_{2e} (4.2%) compared to 2022, due to a year-over-year decrease of 1.8 TWh (0.6%) in electricity generation and continued growth of in-state solar generation. Fossil fuel-powered generation decreased by 5.0 TWh (3.9%).
- **Industrial:** The industrial sector accounted for 18.6% of California's 2023 GHG emissions. This sector saw a decrease of 3.4 MMTCO_{2e} (4.8%) from 2022 to 2023 due to GHG reductions in the oil and gas production and processing sector, the liquid fuels refining and hydrogen production sector, and the cement sector as well as reductions from other industrial sector fuel use.
- **Commercial and Residential:** Commercial and residential emissions, which accounted for 12.0% of the state's total, saw an increase of 1.5 MMTCO_{2e} (3.6%) from 2022 to 2023. The high-GWP gases sector accounted for 5.9% of California's 2023 GHG emissions.
- **High GWP Gas Sector:** High GWP gases continue to replace ODS that are being phased out under the 1987 Montreal Protocol. However, emissions from this sector have been fairly stable from 2020–2023, which is a notable change from 2000–2020 when emissions grew every year.
- **Agriculture:** Agriculture sector emissions accounted for 8.1% of the state's total in 2023 and decreased by 0.9 MMTCO_{2e} (2.9%) from 2022. This was mostly due to a greater share of the sector's diesel fuel use being produced from non-fossil resources and reductions in livestock methane emissions.

- **Recycling and Waste Management:** Emissions from the recycling and waste sector account for the remaining 2.4% of statewide emissions, increasing 0.4 MMTCO₂e (5.4%) from 2022 to 2023.

Climate Change

"Global climate change" refers to changes in average meteorological conditions on the earth with respect to temperature, precipitation, and storms, lasting for decades or longer. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred by some scientists and policymakers to "global warming" because it helps convey the notion that in addition to rising temperatures, other changes in global climate may occur. Climate change may result from the following influences:

- Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun.
- Natural processes within the climate system (e.g., changes in ocean circulation).
- Human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, and desertification).

As determined from worldwide meteorological measurements between 1990 and 2005, the primary observed effect of global climate change has been a rise in the average global tropospheric temperature of 0.36 degrees Fahrenheit (°F) per decade. Climate change modeling shows that further warming could occur, which could induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns, or more energetic aspects of extreme weather (e.g., droughts, heavy precipitation, heat waves, extreme cold, and increased intensity of tropical cyclones). Specific effects from climate change in California may include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in the Sacramento-San Joaquin River Delta.

Human activities, including fossil fuel combustion and land use changes, release carbon dioxide (CO₂) and other compounds cumulatively termed greenhouse gases. GHGs are effective at trapping radiation that would otherwise escape the atmosphere. This trapped radiation warms the atmosphere, the oceans, and the earth's surface (USGCRP, 2014). Many scientists believe most of the warming observed over the last 50 years is attributable to human activities (IPCC, 2014). The increased amount of CO₂ and other GHGs in the atmosphere is the alleged primary result of human-induced warming.

GHGs are present in the atmosphere naturally, released by natural sources, or formed from secondary reactions taking place in the atmosphere. They include CO₂, methane (CH₄), nitrous oxide (N₂O), and O₃. In the last 200 years, substantial quantities of GHGs have been released into the atmosphere, primarily from fossil fuel combustion. These human-induced emissions are increasing GHG concentrations in the atmosphere, therefore enhancing the natural greenhouse effect. The GHGs resulting from human activity are believed to be causing global climate change. While human-made GHGs include CO₂, CH₄, and N₂O, some (like chlorofluorocarbons [CFCs]) are completely new to the atmosphere. GHGs vary considerably in terms of Global Warming Potential (GWP), the comparative ability of each GHG to trap heat in the atmosphere. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO₂, the most abundant GHG.

Effects of Global Climate Change

Changes in the global climate are assessed using historical records of temperature changes that have occurred in the past. Climate change scientists use this temperature data to extrapolate a level of statistical significance, specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from past climate changes in rate and magnitude.

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. In its Fifth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, could range from 1.1 degree Celsius (°C) to 6.4°C (8 to 10.4°Fahrenheit) (IPCC, 2013). Global average temperatures and sea levels are expected to rise under all scenarios (IPCC, 2014). The IPCC concluded that global climate change was largely the result of human activity, mainly the burning of fossil fuels. However, the scientific literature is not consistent regarding many aspects of climate change, the actual temperature changes during the 20th century, and contributions from human versus non-human activities.

Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme weather events, and degradation of air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke, drought, etc. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution.

Effects of Climate Change in California

According to the 2006 California Climate Action Team (CAT) Report, several climate change effects can be expected in California over the course of the next century (CalEPA, 2006). These are based on trends established by the IPCC and are summarized below:

- A diminishing Sierra snowpack declining by 70 percent to 90 percent, threatening the State's water supply.
- A rise in sea levels, resulting in the displacement of coastal businesses and residences. During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century.
- An increase in temperature and extreme weather events. Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- Increased risk of large wildfires if rain increases as temperatures rise. Wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- Increasing temperatures from 8 to 10.4°F under the higher emission scenarios, leading to a 25 percent to 35 percent increase in the number of days that ozone pollution levels are exceeded in most urban areas.
- Increased vulnerability of forests due to forest fires, pest infestation, and increased temperatures.
- Reductions in the quality and quantity of certain agricultural products. The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- Exacerbation of air quality problems. If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions.
- Increased electricity demand, particularly in the hot summer months.
- Increased ground-level ozone formation due to higher reaction rates of ozone precursors.

Climate, Meteorology, and Air Quality Setting

The Project site is located within Kern County in the northeastern portion of the Mojave Desert Air Basin (MDAB), under the jurisdiction of the Eastern Kern Air Pollution Control District (EKAPCD). The climate of the Project area is a continentally modified Mediterranean type,

characterized by cool, wet winters and hot, dry summers. Meteorological data for the Project site is expected to be similar to data recorded at the Inyokern monitoring station. Over the 72-year period of record (November 1940 through December 2012), average annual precipitation at Inyokern was 4.17 inches, with average maximum temperatures ranging from 59.6°F in January to 102.7°F in July (Western Regional Climate Center, 2026).

Table 3-2 of the AQIA (Appendix F.1) presents the MDAB attainment/non-attainment designations for all criteria pollutants under both the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The EKAPCD area, which encompasses the Project site, is designated as Serious Nonattainment for the 8-hour ozone NAAQS (2008 standard, 0.075 ppm), and Nonattainment under state standards for both 1-hour and 8-hour ozone and PM10. The EKAPCD area is designated Unclassifiable/Attainment for CO, PM2.5, NO₂, and SO₂ under NAAQS, and Attainment for NO₂, SO₂, and lead under CAAQS.

Existing ambient air quality conditions are documented in the AQIA (Appendix F.1), Table 3-3, using monitoring data from six CARB-certified monitoring stations for the three-year period 2022 through 2024, including the Ridgecrest-Ward, Trona-Athol and Telegraph, Mojave–Pat Avenue, Mojave–CA 58 Business, Lancaster–Fairgrounds, and Barstow stations. This data is representative of air quality conditions at the Project site and satisfies the Appendix B, Section (g)(8)(A) and (g)(8)(G) requirements for existing air quality setting documentation and three years of ambient monitoring data.

4.8.2 Regulatory Setting

Federal

As discussed in Section 4.6, *Energy*, of this Application, the overarching federal laws and regulations specifically related to energy, energy conservation, and GHG emissions are in flux. In March 2025, the current administration announced that Executive Order 14030 (Climate-Related Financial Risk), Executive Order 14057 (Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability), Executive Order 14082 (Implementation of the Energy and Infrastructure Provisions of the Inflation Reduction Act of 2022), and 94 additional executive orders were revoked.

On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA (40 Code of Federal Regulations [CFR] 1):

- **Endangerment Finding:** The Administrator found that the current and projected concentrations of the six key well-mixed GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) in the atmosphere threaten the public health and welfare of current and future generations.

However, on February 12, 2026 the EPA finalized the rescission of the 2009 Greenhouse Gas Endangerment Finding, determining it lacks authority under the Clean Air Act to regulate GHG as an air pollutant, specifically finding that GHG emissions do not endanger public health or welfare, and ending the EPA's foundation for GHG regulation of stationary and mobile sources.

- **Cause or Contribute Finding:** The Administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

Note that on February 12, 2026, the EPA also finalized the rescission of the 2009 Greenhouse Gas Endangerment Finding and the related “cause-or-contribute” finding for new motor vehicles and motor vehicle engines. This repeal is expected to prompt multiple legal challenges, with litigation taking months or years to resolve, and could have sweeping implications if upheld. The legal status of the Endangerment Finding remains in flux.

While the repeal narrows federal regulatory obligations, it does not eliminate state-level authority to regulate GHG emissions under state law, subject to longstanding EPA waivers and California's independent authority under Health and Safety Code Section 43018.

The principal air quality regulatory mechanism at the federal level is the Clean Air Act (CAA) and in particular, the 1990 amendments to the CAA and the National Ambient Air Quality Standards (NAAQS) that it establishes. The federal CAA does not specifically regulate GHG emissions; however, the U.S. Supreme Court has determined that GHGs are pollutants that can be regulated under the federal CAA. However, there are currently no federal regulations that set ambient air quality standards for GHGs.

Federal Clean Air Act

At the federal level, the EPA is responsible for overseeing implementation of the federal Clean Air Act and its subsequent amendments (CAA). As required by the federal CAA, NAAQS have been established for the criteria pollutants described in this section, but these criteria pollutants can be distinguished from GHGs.

New Source Performance Standards

The proposed Project would be subject to the applicable New Source Performance Standards (NSPS) identified below, along with a description of the Applicant's compliance plan to meet each standard.

40 CFR Part 60, Subpart IIII

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines became effective July 11, 2006. The Project's emergency diesel engines are subject to Subpart IIII. The proposed engines are EPA Tier 2 rated and would be equipped with Best Available Control Technology (BACT) to meet Tier 4 emissions standards.

Compression Ignition (CI) Diesel Engines Emission Standards

According to 40 CFR 60.4202, emergency CI engines rated at greater than 560 kW are subject to the emissions standards in 40 CFR 89.112, Table 1, as follows:

- Tier 4 — NO_x 0.5 g/bhp-hr
- Tier 4 — NMHC 0.14 g/bhp-hr
- Tier 4 — CO 2.6 g/bhp-hr
- Tier 4 — PM 0.02 g/bhp-hr

Note that the proposed diesel-fired engines are EPA Tier 2-certified base engines equipped with Johnson Matthey CompactSCRT aftertreatment (SCR + DPF), achieving Tier 4 Final-equivalent emission levels at stack and meeting the BACT requirements of the EKAPCD.

40 CFR Part 60 Subpart ZZZZ

The proposed CI engines are exempt from the requirements of Subpart ZZZZ (63.6590 (c)(1)) if the engines comply with the emissions limitations specified in 40 CFR 60 Subpart IIII.

Corporate Average Fuel Economy Standards

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. CAFE standards are corporate average standards, which require each automobile manufacturer to achieve an average fuel economy for all automobiles in a given model year.

The NHTSA and EPA set the Corporate Average Fuel Economy Standards (CAFE) standards to improve the average fuel economy and reduce GHGs generated by cars and light trucks. For model year (MY) 2027, the standards require an average fuel economy of 50.4 MPG for passenger cars and 37.5 MPG for light trucks. NHTSA is currently developing future MY CAFE standards.

Medium- and Heavy-Duty Vehicle Program

EPA and NHTSA set fuel efficiency and GHG standards for medium- and heavy-duty trucks. In 2011, EPA and NHTSA finalized a joint rule that established a national program to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses for MY 2014 through 2018 (Phase 1). EPA's Phase 2 heavy-duty vehicle fuel efficiency rule was published in 2016 and covers MY 2021 through 2027 trucks and engines. EPA's Phase 3 rule covering MY 2027 and beyond was published in 2024.

Construction Equipment Emission Standards

The Code of Federal Regulations established tiered emissions standards for construction equipment (i.e., nonroad diesel engines) to phase in cleaner-burning equipment in the construction, agricultural, industrial, and mining industries. Construction equipment emissions standards are set by Tier (1, 2, 3, and 4) and engine horsepower. Tier 4 standards require a 90 percent reduction in NO_x and PM emissions compared to Tier 3. Tier 4 Final requirements became effective between 2012 and 2015, depending on engine power category.

Public Law No. 119-15

On June 12, 2025, Public Law 119-15, enacting House Joint Resolution 87, was signed into law. The law utilized the Congressional Review Act to nullify EPA's rule titled "Multi-Pollutant Emission Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles" (89 Fed. Reg. 27842, April 18, 2024). This rule had established stricter emissions standards for light- and medium-duty vehicles for model years 2027 and later.

Public Law No. 119-16

Similarly on June 12, 2025, Public Law No. 119-16, enacting House Joint Resolution 88, became law. The law also relied on the Congressional Review Act to void the EPA's rule titled "Phase 3 Greenhouse Gas Emission Standards for Heavy-Duty Vehicles" (89 Fed. Reg. 29440, April 22, 2024). This rule had established greenhouse gas emission standards for heavy-duty vehicles for model year 2027 and beyond.

U.S. Implementation of Montreal Protocol and its Kigali Amendment - HFCs

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United Nations Framework Convention on Climate Change established an agreement with the goal of controlling GHG emissions, including methane.

As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan consists of more than 50 voluntary programs. Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. Pursuant to the Montreal Protocol, the production and consumption of compounds that deplete O₃ in the stratosphere (chlorofluorocarbons [CFCs], halons, carbon tetrachloride, and methyl chloroform) were phased out by 2000 (methyl chloroform was phased out by 2005).

In spite of the recent changes in GHG and energy policy under the Trump Administration, as of early 2026, the United States is still implementing the Montreal Protocol and its Kigali Amendment, which aims to phase down hydrofluorocarbons (HFCs). The U.S. Senate ratified the Kigali Amendment in September 2022, creating a binding obligation to continue this phase-down. The EPA is actively enforcing the American Innovation and Manufacturing (AIM) Act of 2020, which mandates an 85% reduction of HFC production and consumption by 2036. The EPA finalized HFC allowances for 2026 by October 1, 2025, and continues to manage the allowance cap-and-trade program, despite some efforts to adjust or weaken rules around specific sectors.

State

Executive Order S-1-07 - Low Carbon Fuel Standard (LCFS)

Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, and establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least 10 percent by 2020. As a result of this order, CARB approved a proposed regulation to implement the Low Carbon Fuel Standard (LCFS) in order to reduce GHG emissions from the transportation sector in California by approximately 16 MMTCO_{2e} by 2020. The LCFS is designed to reduce California's dependence on petroleum, create a lasting market for clean transportation technology, and stimulate the production and use of alternative, low-carbon fuels in California.

Executive Orders S-3-05 and B-30-15

In recognition of California's vulnerability to the effects of climate change, Executive Order S-3-05 was established which set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Executive Order B-30-15 was issued to establish a GHG reduction target of 40 percent below 1990 levels by 2030. Executive Orders S-3-05 and B-30-15 are only applicable to "State agencies with jurisdiction over sources of greenhouse gas emissions" (Order 4-29-2015 Section 2).

Executive Order B-55-18 and Assembly Bill 1279 (California Climate Crisis Act)

Executive Order B-55-18 was issued in September 2018. It ordered a new statewide goal of achieving carbon neutrality no later than 2045 and to maintain net negative emissions thereafter. Assembly Bill 1279, also known as the California Climate Crisis Act, was approved on September 16, 2022 and codifies the statewide goal set by Executive Order B-55-18 of achieving net zero GHG emissions no later than the year 2045 and maintaining net negative emissions thereafter. In addition, this bill has a statewide goal of reducing anthropogenic GHG emissions by 85 percent below the 1990 levels by the year 2045. The bill requires CARB to work with relevant state agencies to ensure that updates to the scoping plan identify and recommend measures to achieve these policy goals and implement strategies that enable CO₂ removal solutions and carbon capture, utilization, and storage technologies in California.

Advanced Clean Cars II Regulation

To continue reducing air pollutants and GHG emissions in the transportation sector, CARB adopted the Advanced Clean Cars II Regulations (Resolution 22-12) on August 25, 2022. The new regulation requires that by 2035 all new passenger cars, trucks, and SUVs sold in California will be zero emission vehicles. Beginning in 2026, 35 percent of new vehicle sales must be zero-emission vehicles and plug-in hybrid electric vehicles (EV) and that percentage will increase per year. By 2030, 70 percent of new vehicle sales will be zero-emissions vehicles and by the 2035 model year 100 percent of new vehicle sales will be zero-emissions. CARB will limit the use of plugin hybrid EVs in the percentage requirements to keep the manufacturing of zero-emissions as the primary goal. Existing gasoline cars can continue to be driven and sold as used cars beyond 2035.

Assembly Bill 32 and Senate Bill 32 (California Global Warming Solutions Act of 2006)

In 2006, the California State Legislature adopted AB 32 (codified in the California Health and Safety Code [HSC], Division 25.5 — California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines GHGs as CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing State actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 and AB 197 amends HSC Division 25.5 and establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030

and includes provisions to ensure the benefits of State climate policies reach into disadvantaged communities.

Climate Change Scoping Plan (2022)

On December 15, 2022, CARB approved the 2022 Scoping Plan. The 2022 Scoping Plan provides a sector-by-sector guide on how to reduce man-made (i.e., anthropogenic) GHG emissions by 85 percent below 1990 levels and achieve carbon neutrality by 2045 over a 25-year horizon. The primary focus of the 2022 Scoping Plan is to reduce the usage of fossil fuels by electricizing the transportation sector, procuring electricity from renewable resources, phasing out natural gas in land use developments, and building transit-oriented communities that encourage multi-modal transportation. If implemented successfully, the 2022 Scoping Plan would not only reduce GHG emissions but also reduce smog-forming air pollution (NO_x) by 71 percent and reduce fossil fuel demand by 94 percent. The 2022 Scoping Plan also details natural carbon capture and storage process along with mechanical carbon capture programs to address the remaining 15% of anthropogenic GHG emissions that will remain post-2045. To meet these goals, CARB also includes a revised goal of reducing state GHG emissions 48 percent below 1990 levels by 2030.

Senate Bill 97

SB 97 was enacted requiring the Office of Planning and Research (OPR) to develop guidelines for the mitigation of GHG emissions, or the effects related to releases of GHG emissions. OPR submitted proposed amendments to the Natural Resources Agency in accordance with SB 97 regarding analysis and mitigation of GHG emissions. As directed by SB 97, the Natural Resources Agency adopted Amendments to the CEQA Guidelines for GHG emissions, which became effective in 2010.

Senate Bill 375

SB 375, which establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions, was adopted by the State. CARB adopted the vehicular GHG emissions reduction targets that had been developed in consultation with the metropolitan planning organizations (MPOs); the targets require a 7 to 8 percent reduction by 2020 and between 13 to 16 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant GHG reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs, such as the Kern Council of Governments (KCOG), will work with local jurisdictions in the development of sustainable community strategies (SCS) designed to integrate development patterns and the transportation network in a way that reduces GHG emissions while meeting housing needs and other regional planning objectives. KCOG's reduction target for per capita vehicular emissions is 5 percent by 2020 and 10 percent by 2035 (CARB, 2010).

California Renewables Portfolio Standard

First established in 2002 under SB 1078, California's Renewables Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent by 2020 and 50 percent by 2030 (California Energy Commission, 2019). In 2018, SB 100 further increased California's RPS and required retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by the end of 2024, 52 percent by the end of 2027, and 60 percent by the end of 2030; and that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045. The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program.

Senate Bill 100

SB 100 (De León) was approved by the California legislature and signed by Governor Brown in September 2018. The bill increases RPS in 2030 from 50 percent to 60 percent and establishes a goal of 100 percent RPS by 2045. SB 100 also increases the state's RPS renewable resources requirement to 50 percent by 2026 and 60 percent by 2030. It also requires renewable energy resources and zero-carbon resources to supply 100 percent of all retail sales of electricity by 2045. The Project's GHG emissions are predominantly from electricity usage, which would be supplied by Southern California Edison and thus would be subject to the RPS requirements promulgated under SB 100; the Project would not conflict with plans, policies, or regulations adopted pursuant to SB 100.

Senate Bill 1368

SB 1368 was enacted, and required the CPUC to establish a baseload generation standard for publicly owned or leased facilities which generate electricity at a GHG Emissions Performance Standard (EPS) of 1,100 pounds of CO_{2e} per megawatt-hour. SB 1368 also requires the posting of notices of public deliberations by publicly owned companies on the CPUC website and establishes a process to determine compliance with the EPS.

Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program combined the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2019c). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75 percent less smog-forming

pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the USEPA and NHTSA, has adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34 percent in 2025. The Zero Emissions Vehicle (ZEV) program will act as the focused technology of the Advanced Clean Cars program by requiring manufactures to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in 2018 to 2025 model years.

California Green Building Standard Code (CALGreen)

The 2025 CALGreen Code (Part 11, Title 24) takes effect on January 1, 2026, marking a significant shift toward mandatory embodied-carbon limits for new construction, making California the first U.S. state to do so. These regulations, alongside the 2025 Energy Code, focus on stricter low-VOC standards, increased water efficiency, and sustainable materials to reduce the environmental footprint. Key Changes in the 2025 CALGreen Code (Effective Jan 1, 2026) include:

- **Embodied Carbon Limits:** Mandatory regulations targeting carbon emissions from the production, transport, and installation of building materials, especially for large non-residential projects ($>100,000 \text{ sq ft}$) and schools ($>50,000 \text{ sq ft}$).
- **Enhanced Indoor Environmental Quality:** Tighter, more detailed requirements for ventilation, moisture control, and low-VOC material usage to improve occupant health.
- **Water Efficiency:** Continued reductions in indoor and outdoor water usage.
- **Structural Efficiency:** New requirements for resource efficiency and adaptability in structural design, including mass-timber allowances.
- **Electric Vehicle (EV) Infrastructure:** Continued, likely stricter, requirements for EV charging readiness in new, low-rise residential and commercial buildings.

The changes to CALGreen, including those cited above, apply to new construction, additions, and major renovations for both residential and non-residential buildings. All permit applications submitted on or after January 1, 2026, must comply with the 2025 standards. Local jurisdictions may adopt stricter voluntary Tier 1 or Tier 2 standards, which are often adopted as mandatory by cities aiming for climate goals.

Regional

2022 Regional Transportation Plan/Sustainable Communities Strategy (2022 RTP/SCS)

The KCOG is the regional planning agency for Kern County and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. KCOG serves as the federally designated metropolitan planning organization for Kern County.

The current adopted plan is the 2022 Regional Transportation Plan/Sustainable Communities Strategy (2022 RTP/SCS), adopted on July 21, 2022. It serves as a 20+ year blueprint for Kern County's transportation system, addressing mobility through 2045, with a focus on reducing greenhouse gas emissions. Key Aspects of the 2022 RTP/SCS include:

- Greenhouse Gas (GHG) Reduction: The plan meets California Senate Bill 375 targets, aiming for a 9% reduction by 2020 and 15% below 2005 per capita emissions levels by 2035.
- Funding and Projects: It aligns with the 2023 Federal Transportation Improvement Program (FTIP) and guides regional infrastructure spending.
- Future Development: The plan informs the 2026 Regional Transportation Improvement Program (RTIP), which implements key projects such as the Centennial Corridor Phase 2 Connector.

The 2022 RTP/SCS is developed on a 4-year cycle, meaning the next major update will be the 2026 RTP/SCS

Local

EKAPCD Air Quality Standards and Regulations

EKAPCD Regulation II, Rule 210.1 — New & Modified Stationary Source Review (NSR)

This rule applies to all new or modified sources requiring a Permit to Operate for any new source with actual or potential emissions above the rule trigger limits. The rule also specifies when BACT is required, when offsets are required and the offset ratios, as well as the requirements for the required impact analyses.

EKAPCD BACT Requirements

Under Rule 210.1, BACT is determined on a case-by-case basis and is defined as the most stringent emission limitation or control technique that has been achieved in practice for the category of source, or is technologically feasible and cost-effective, considering energy, environmental, and economic impacts.

BACT determinations are conducted using a top-down evaluation of available control technologies. The most effective control option that is technically and economically feasible is selected as BACT.

The proposed 4,023 horsepower diesel-fired engines would operate as emergency standby generators. Available control technologies evaluated include SCR and DPF to meet EPA Tier 4

Final emission standards. For new stationary emergency compression-ignition engines of this size, EPA Tier 4 Final certification represents the most stringent emission standard currently achieved in practice.

NSR Offset Requirements

A new or modified stationary source of PM₁₀ or SOX shall provide offsets for the NSR balance when the NSR balance, calculated pursuant to Subsection IV.D. of Rule 210.1, equals or exceeds the following offset trigger levels; and a new or modified stationary source of NO_x and VOC shall provide offsets for the source's potential to emit when the source's potential to emit, calculated pursuant to Subsection IV.E. of Rule 210.1, equals or exceeds the following offset trigger levels:

- PM₁₀: 15 tons/yr
- SOX (as SO₂): 27 tons/yr
- VOC: 25 tons/yr
- NO_x (as NO₂): 25 tons/yr

According to Rule 210.1, offsets shall not be required for emergency equipment not operated more than 200 hours per year (excluding routine maintenance/service startups), as approved by the Control Officer.

Eastern Kern Air Pollution Control District

In March 2012, EKAPCD adopted an addendum to its CEQA Guidelines to address GHG impacts. The Guidelines provide quantitative thresholds for determining significance of GHG emissions for projects where EKAPCD is the CEQA lead agency. A project is considered to have a significant project or cumulative considerable impact if it generates 25,000 tons or more of CO₂e per year (22,680 MTCO₂e). These impacts would be considered to be fully reduced to below the significance level if it meets one of the following conditions:

- The project demonstrates to EKAPCD that it is in compliance with a state GHG reduction plan such as AB 32 or future GHG reduction plan if it is more stringent than the state plan; or
- Project GHG emissions can be reduced by at least 20 percent below business as usual (BAU) through implementation of one or more of the following strategies:
 - Compliance with Best Performance Standard (BPS);
 - Compliance with GHG Offset; and/or
 - Compliance with an Alternative GHG Reduction Strategy.

Kern County General Plan

The goals, policies, and implementation measures in the Kern County General Plan applicable to air quality, as related to the Project, are provided below. The Kern County General Plan contains additional policies, goals, and implementation measures that are more general in nature and not specific to development such as the proposed Project. Therefore, they are not listed below.

Chapter 1: Land Use, Open Space, and Conservation Element — Air Quality

- Goal 1** Ensure that the County can accommodate anticipated future growth and development while maintaining a safe and healthful environment and a prosperous economy by preserving valuable natural resources, guiding development away from hazardous areas, and assuring the provision of adequate public services.
- Policy 18** The air quality implications of new discretionary land use proposals shall be considered in approval of major developments. Special emphasis will be placed on minimizing air quality degradation in the desert to enable effective military operations and in the valley region to meet attainment goals.
- Policy 19** In considering discretionary projects for which an Environmental Impact Report must be prepared pursuant to the California Environmental Quality Act, the appropriate decision making body, as part of its deliberations, will ensure that: (1) All feasible mitigation to reduce significant adverse air quality impacts have been adopted; and (2) The benefits of the proposed project outweigh any unavoidable significant adverse effects on air quality found to exist after inclusion of all feasible mitigation.
- Measure F** All discretionary permits shall be referred to the appropriate air district for review and comment.
- Measure G** Discretionary development projects involving the use of tractor-trailer rigs shall incorporate diesel exhaust reduction strategies including, but not limited to: (1) Minimizing idling time; and (2) Electrical overnight plug-ins.
- Measure H** Discretionary projects may use one or more of the following to reduce air quality effects: (1) Pave dirt roads within the development; (2) Pave outside storage areas; (3) Provide additional low Volatile Organic Compounds (VOC) producing trees on landscape plans; (4) Use of alternative fuel fleet vehicles or hybrid vehicles; (5) Use of emission control devices on diesel equipment.
- Measure J** The County should include PM10 control measures as conditions of approval for subdivision maps, site plans, and grading permits.

Chapter 5: Energy Element — Solar Energy Development

Goal 1 Encourage safe and orderly commercial solar development.

Policy 1 The County shall encourage domestic and commercial solar energy uses to conserve fossil fuels and improve air quality.

Policy 3 The County should permit solar energy development in the desert and valley planning regions that does not pose significant environmental or public health and safety hazards.

The Project includes rooftop and parking cover mounted solar panels as project components and is consistent with the goals and policies of the Kern County General Plan Energy Element.

All policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Inyokern Specific Plan

The entire Project site is subject to the provisions of the Inyokern Specific Plan, which contains goals, policies, and standards that are compatible with those of the Kern County General Plan, but are unique to the specific needs of the Inyokern Area. The Land Use, Open Space, and Conservation Element of the Inyokern Specific Plan has the purpose of identifying physical constraints, public, residential, commercial, and industrial facilities as well as cultural and biological resources within the Plan area. The goal and policy in the Inyokern Specific Plan for energy applicable to the Project are provided below.

Land Use, Open Space, and Conservation Element — Section 1.6: Resource

Goal 1 To provide for development which does not impair the economic potential of the area, while not diminishing the other amenities which exist within the community.

Policy 5 Encourage development of alternative energy sources by tailoring County zoning and subdivision ordinances and building standards to reflect Alternative Energy Guidelines published by the California State Energy Commission.

All policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

4.8.3 Impacts and Mitigation Measures

Methodology

The proposed Project's potential impacts to GHGs have been evaluated using a variety of resources, including the Project Description, the GHG section of the Air Quality Impact & GHG Analysis (Appendix F.1, AQIA), the information and analysis included Section 4.6, *Energy*, and the Environmental Sustainability Plan and Best Management Practices prepared for the Project (Appendix O.1). The impact assessment for the Project is also based upon a review of relevant literature and technical reports that include, but are not limited to, information and guidelines by the California Air Resources Board (CARB), the United States Environmental Protection Agency (USEPA), the Eastern Kern Air Pollution Control District (EKAPCD), and the applicable provisions of the California Environmental Quality Act (CEQA).

The adopted CEQA Guidelines provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and global climate change impacts. Quantitative significance thresholds for this impact area have not been adopted by the State of California.

Kern County has not developed a quantified threshold of significance for GHG emissions, but a project found to contribute to a net decrease in GHG emissions and found to be consistent with the adopted implementation of the CARB AB 32 Scoping Plan is presumed to have less-than-significant GHG impacts.

Further, in March 2012, EKAPCD adopted an addendum to their CEQA Guidelines to address GHG impacts, including quantitative thresholds for determining significance of GHG emissions when EKAPCD is the CEQA lead agency. In these circumstances, a project is considered to have a significant project or cumulatively considerable impact if it exceeds the following criteria:

- If project is exempt from CEQA due to either a statutory or categorical exemption, no further analysis under CEQA is required.
- Project-Specific GHG Emissions must be quantified if the project is not exempt from CEQA.
- Project is considered to have a less than significant impact or not have a cumulatively considerable impact on GHG emissions if it meets one of the following conditions:
 - Project-Specific GHG emissions are less than 25,000 tons per year (tpy);
 - Project demonstrates to EKAPCD that it is in compliance with state GHG reduction plan such as AB 32 or future federal GHG reduction plan if it is more stringent than state plan;

- Project GHG emissions will be mitigated to a less than significant impact if GHGs can be reduced by at least 20% below Business-As-Usual (BAU) through implementation of one or more of the following strategies: Compliance with a Best Performance Standard (BPS); Compliance with GHG Offset; or Compliance with an Alternative GHG Reduction Strategy.

Specifically, those plans and policies established in accordance with AB 32 as well as other federal, state, and local policies.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could potentially have a significant adverse effect on GHGs. A project would have a significant impact on GHGs if it would:

- (a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- (b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Project Impacts

Impact 4.8-1: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Construction

The Project would directly generate GHG emissions during construction and routine operational and maintenance activities. The proposed Project's construction and operational GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2022.1.1.37 (CAPCOA, 2026), AP-42 emission factors, manufacturer specifications, EPA's Tanks Version 5.2, and EKAPCD-approved emission factors and methodology. Table 4-14 of the AQIA (Appendix F.1) presents the Project's annual GHG emissions; those figures are restated in this section as **Table 4.8-1**.

Table 4.8-1: Estimated Annual GHG Emissions (MT/Year)
(Restating Table 4-14, AQIA; (Appendix F.1))

Source	CO ₂ e
Total Construction Emissions	5,239
<i>Annualized Construction Emissions¹</i>	<i>174.6</i>
<i>Miscellaneous Operations (Area, Mobile, waste, water)</i>	<i>637.6</i>
<i>Emergency Generators</i>	<i>1,317</i>
<i>Refrigerant Leakage</i>	<i>250.8</i>
<i>Energy Emissions (Off-site)²</i>	<i>210,262</i>
Total On-site Operational Emissions	2,205
Total On-site Project Emissions	2,379
EKAPCD's Significance Threshold	25,000 MT CO ₂ e
Significance Threshold Exceeded?	No

Per South Coast AQMD's Methodology. Emissions from power generation across the SCE system, and as such they are reported by SCE on a specific generating facility basis. These emissions are not part of the project facility inventory.

Additionally, the proposed Project substations may feature circuit breakers that contain SF₆ gas, used as an insulator and an arc suppressor in the breakers. SF₆ is inert and non-toxic and is encapsulated in the breaker assembly. SF₆ is a GHG with substantial global warming potential because of its chemical nature and long residency time within the atmosphere. However, under normal conditions, it would be completely contained in the equipment and SF₆ would be released only in the unlikely event of a failure, leak, or crack in the circuit breaker housing. New circuit breaker designs have been developed to minimize the potential for leakage, compared to that of past designs, and the amount of SF₆ that could be released by facility equipment would be minimal. At this time SF₆ circuit breakers are not proposed and even with the addition of SF₆ circuit breakers the annual threshold for GHG emissions would not be exceeded.

The Project would not result in the emissions of hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), the other gases identified as GHG in AB 32. The proposed Project would be subject to any regulations developed under AB 32 as determined by CARB. As demonstrated in Table 4.8-1, Estimated Annual GHG Emissions, the Project would emit less than EKAPCD's significance threshold of 25,000 MT per year. The proposed Project would therefore have a less than significant GHG impact.

Operation

As shown in Table 4.8-1, the Project's total on-site GHG emissions are 2,379 MT CO₂e per year, well below the EKAPCD significance threshold of 25,000 MT CO₂e per year. The Project's operational emissions arise solely from periodic emergency generator testing and utility-outage operation, as authorized under EKAPCD Rule 210.1 (not to exceed 200 hours per year), totaling 2,205 MT CO₂e per year. Accordingly, the Project's contribution to climate change would not be cumulatively considerable and GHG impacts would be less than significant.

Mitigation Measures: No mitigation would be required; however, implementation of Mitigation Measure MM 4.3-3 would further reduce GHG emissions from construction activities. (See Section 4.3, Air Quality, for full text of Mitigation Measure MM 4.3-3).

Level of Significance: Impacts would be *less than significant*.

Impact 4.8-2: Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Construction

CEQA requires that all feasible and reasonable mitigation be applied to the Project to reduce the impacts from construction and operations on air quality. The EKAPCD's "Non-Residential On-Site Mitigation Checklist" was applied in preparing the mitigation measures and evaluating the Project's features as a proxy for EKAPCD. These measures include using controls that limit the exhaust from construction equipment and using alternatives to diesel when possible. Additional reductions would be achieved through the air districts and CARB implementing regulations to reduce diesel engine emissions.

Operation

Table 4.8-2: California Greenhouse Gas Emission Reduction Strategies

Strategy	Project Design to Comply with Strategy
Vehicle Climate Change Standards (AB 1493 Pavley) — Required CARB to develop regulations that achieve maximum feasible GHG reductions from passenger vehicles and light duty trucks. Regulations were adopted by CARB in September 2004.	These are CARB enforced standards; vehicles that access the Project and are required to comply with the standards would comply with these strategies.
Other Light Duty Vehicle Technology — New standards adopted to phase in beginning in the 2017 model year.	Project employees and contractors would use vehicles compliant with applicable CARB vehicle emission standards.

Strategy	Project Design to Comply with Strategy
Heavy-Duty Vehicle Emission Reduction Measures — Increased efficiency in the design of heavy-duty vehicles and an education program for the heavy-duty vehicle sector.	Project construction vehicles would comply with applicable heavy-duty vehicle emission standards.
Diesel Anti-Idling — In July 2004, CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Project would be subject to State law.
Hydrofluorocarbon Reduction — (1) Ban retail sale of HFC in small cans; (2) Require low GWP refrigerants in new vehicular systems; (3) Adopt specifications for commercial refrigeration; (4) Add refrigerant leak tightness to I/M programs; (5) Enforce federal ban on releasing HFCs.	This measure applies to consumer products. When CARB adopts regulations for these reduction measures, any products that the regulations apply to would comply with the measures.
Transportation Refrigeration Units (TRU), Off-Road Electrification, Port Electrification	Not applicable
Manure Management — Reduction of volatile organic compounds from confined animal facilities.	Not applicable
Alternative Fuels — Biodiesel Blends and Ethanol	Not applicable
Achieve 50 percent Statewide Recycling Goal — Reduce climate change emissions associated with energy intensive material extraction and methane from landfills.	The Project would comply with the 1989 California Integrated Waste Management Act and the California Solid Waste Reuse and Recycling Access Act of 1991, as amended.
Zero Waste — High Recycling: Additional recycling beyond the State's 50 percent goal.	The Project would comply with the 1989 California Integrated Waste Management Act.
Landfill Methane Capture — Install direct gas use or electricity projects at landfills.	Not applicable
Urban Forestry — A new statewide goal of planting five million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	Not applicable
Afforestation/Reforestation Projects — Reforestation projects focus on restoring native tree cover on lands that were previously forested and are now covered with other vegetative types.	Not applicable
Water Use Efficiency — 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.	Not applicable

Strategy	Project Design to Comply with Strategy
Building Energy Efficiency Standards in Place and in Progress — Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	The Project would be consistent with State law.
Appliance Energy Efficiency Standards in Place and in Progress — Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	The Project would be consistent with State law.
Cement Manufacturing — Cost-effective energy reductions and lower carbon dioxide emissions in the cement industry.	Not applicable
Smart Land Use and Intelligent Transportation Systems (ITS) — Smart land use strategies encourage jobs/housing proximity, promote transit oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services.	Not applicable
Smart land use, demand management, ITS, and value pricing are critical elements for improving mobility and transportation efficiency. Specific strategies include: promoting jobs/housing proximity and transit-oriented development; encouraging high density residential/commercial development along transit/rail corridor; valuing and congestion pricing; implementing intelligent transportation systems, traveler information/traffic control, incident management; accelerating the development of broadband infrastructure; and comprehensive, integrated, multimodal/intermodal transportation planning.	Not applicable
Enteric Fermentation — Cattle emit methane from digestion processes. Changes in diet could result in a reduction in emissions.	Not applicable
Green Buildings Initiative — Green Building Executive Order, S-20-04 (CA 2005), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels.	Not applicable
California Solar Initiative — Installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses; increased use of solar thermal systems to offset the increasing demand for natural gas; use of advanced metering in solar applications; and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	The Project includes rooftop and parking cover mounted solar panels as project components. The Project does not conflict with this strategy.

SOURCE: CARB, 2014; CARB, 2022 Climate Change Scoping Plan.

Table 4.8-3: Applicable Scoping Plan Strategies for Proposed Project

ID #	Sector	Strategy Name
T-1	Transportation	Advanced Clean Cars
T-2	Transportation	Low Carbon Fuel Standard
E-3	Electricity and Natural Gas	Renewables Portfolio Standard
E-4	Electricity and Natural Gas	Million Solar Roofs
CR-1	Electricity and Natural Gas	Energy Efficiency
H-6	High GWP Gases	SF ₆ Leak Reduction Gas Insulated Switchgear

SOURCE: CARB, 2014; CARB, 2022 Climate Change Scoping Plan

Action T-1 relates to the Advanced Clean Cars program, in which the Project's employees would purchase vehicles in compliance with the CARB vehicle standards that are in effect at the time of the vehicle purchase. In addition, as it related to Low Carbon Fuel Standards, under Action T-2, motor vehicles driven by the Project's employees would use compliant fuels.

Action E-3 relates to renewable energy and the RPS, which is intended to increase California's renewable energy production to 20 percent by 2010, to 33 percent by 2020, and to 50 percent by 2030. The CPUC shows that the State's three largest utilities had a 27.6 percent renewable portfolio in 2015 and are on track to meet the RPS requirement of 33 percent renewables by 2020 (CPUC, 2017). A key prerequisite to reaching a target of 33 percent RPS by 2020 and 50 percent RPS by 2030 would be to provide sufficient electric transmission lines to renewable resource zones and system changes to allow integration of large quantities of intermittent wind and solar generation. The Project includes rooftop and parking cover mounted solar panels as project components. The Project would not conflict with Action E-3.

Action E-4 aims to install 3,000 MW of solar energy capacity under the Million Solar Roofs Program. This measure would offset electricity from the grid, thereby reducing GHG emissions. By requiring greater energy efficiency for projects that seek solar incentives, the State would be able to reduce both electricity and natural gas needs and their associated GHG emissions. The Project includes rooftop and parking cover mounted solar panels as project components, consistent with the goals of this program. The Project would not conflict with Action E-4.

Action CR-1 relates to energy efficiency in commercial and residential buildings and the need for more aggressive utility programs to achieve long-term energy savings. The Project is a high-efficiency data center designed to minimize energy consumption per unit of computing output.

The Project would comply with applicable Title 24 energy efficiency standards for any on-site buildings and would not conflict with Action CR-1.

Action H-6 relates to sulfur hexafluoride (SF₆) from leakage of gas insulated switchgear use in electricity transmission and distribution systems by setting limits on leakage rates and implement best management practices for the recovery and handling of SF₆. Consistent with this action, the Project would comply with any and all applicable regulatory requirements for any SF₆ containing switchgear.

KCOG 2018 RTP

The 2018 RTP incorporates local land use projections and circulation networks in city and county general plans. The 2018 RTP is not directly applicable to the Project because the underlying purpose of the 2018 RTP is to provide direction and guidance by making the best transportation and land use choices for future development. Nevertheless, the Project would not conflict with the goals and policies of the 2018 RTP. In addition, the Project would not impact local transportation or land use during operation.

Other Federal/State/Local Policies

The Project's total on-site GHG emissions of 2,379 MT CO₂e per year are well below the EKAPCD significance threshold of 25,000 MT CO₂e per year and are consistent with applicable federal, state, and local plans and policies adopted for the purpose of reducing GHG emissions. Therefore, this impact would be less than significant.

Table 4.8-4: Project Consistency with an Applicable Plan, Policy, or Regulation for GHG Emissions

Adopted Plan, Policy, or Regulation	Consistency Determination	Proposed Project Consistency
Federal		
40 CFR Part 98. Mandatory Reporting of Greenhouse Gases Rule	Not applicable	The Project would have direct CO ₂ e operating emissions that are well below the 25,000 ton/year rule trigger.
40 CFR Part 52. Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule	Not applicable	The Project would have direct CO ₂ e operating emissions that are well below the 75,000 ton/year rule trigger.

State		
SB 1368. EPS Standard	Consistent	The Project's total on-site GHG emissions (2,379 MT CO ₂ e/year) are well below the applicable significance threshold. The Project is consistent with SB 1368.
SB X1-2. 33% RPS Standard; SB 350. 50% RPS Standard	Indirectly consistent	The Project does not conflict with RPS requirements applicable to retail electricity sellers.
AB 32. Annual GHG Emissions Reporting	Not applicable	The Project's total on-site GHG emissions (2,379 MT CO ₂ e/year) are well below the 25,000 MT/year federal reporting threshold under 40 CFR Part 98. The Project is not subject to mandatory federal GHG reporting.
Local		
Kern County General Plan - Air Quality Element Policies Goals and Implementation Measures	Consistent	The Project is consistent with the Kern County General Plan Air Quality Element Policies, Goals, and Implementation Measures that will indirectly reduce GHG emissions by reducing fossil fuel combustion.

Consideration of Mitigation Measures

The Office of the California Attorney General maintains a website with a list of CEQA mitigation measures for global climate change impacts. The Attorney General has listed some examples of types of mitigation measures that local agencies may consider to offset or reduce global climate change impacts from a project. The Attorney General assures that the presented lists are examples and not intended to be exhaustive, but instead provide measures and policies that could be undertaken. Moreover, the measures cited may not be appropriate for every project, so the Attorney General suggests that the lead agency should use its own informed judgment in deciding which measures it would analyze, and which measures it would require, for a given project.

The Attorney General suggests measures that could be undertaken or funded by a diverse range of projects, related to energy efficiency; renewable energy; water conservation and efficiency; solid waste measures; land use measures; transportation and motor vehicles; and carbon offsets. However, most of the suggested measures would not be applicable to the Project, since they are more appropriate and applicable measures to reduce long-term operational GHG emissions.

As demonstrated in **Table 4.8-1**, the Project's total on-site GHG emissions of 2,379 MT CO₂e per year are well below the EKAPCD significance threshold of 25,000 MT CO₂e per year. As documented in the AQIA (Appendix F.1, Section 8), GHG impacts were found to be less than significant. No specific GHG mitigation measures would be required.

Mitigation Measures: No mitigation would be required; however, implementation of Mitigation Measure MM 4.3-3 would further reduce GHG emissions from construction activities. (See Section 4.3, Air Quality, for full text of Mitigation Measure MM 4.3-3).

Level of Significance: Impacts would be *less than significant*.

4.8.4 Mitigation Measures

Other than those mitigation measures are required in other resource categories already stipulated that have an impact on GHG impacts, no additional mitigation is required. The Project's total on-site operational GHG emissions of 2,379 MT CO₂e per year, as documented in **Table 4.8-1**, are well below the EKAPCD significance threshold of 25,000 MT CO₂e per year. Accordingly, no mitigation is required and GHG impacts would be less than significant. **Table 4.8-A** below provides the CEC SPPE Appendix B compliance cross-reference.

Table 4.8-A: CEC SPPE Appendix B Compliance Cross-Reference — Section (g)(8)

Ref.	Appendix B Requirement	Section / Table	Status
Setting Requirements			
(g)(8)(A)	Description of existing air quality setting, including topography, meteorology, ambient standards, attainment status, and emission inventory	Section 4.8.1; Appendix F.1	✓ Addressed
(g)(8)(B)	Assessment of GHG emission conflict with applicable plans, policies, or regulations adopted for GHG reduction	Section 4.8.3.3; Table 4.8-2; Table 4.8-3	✓ Addressed
(g)(8)(C)	Estimate of construction and operational GHG emissions (metric tons CO ₂ e/year)	Section 4.8.3.3, Impact 4.8-1; Table 4.8-1	✓ Addressed
Impact and Disclosure Requirements			
(g)(8)(D)	Identification of applicable GHG emission control measures and regulatory requirements	Section 4.8.2; Section 4.8.3	✓ Addressed
(g)(8)(E)	Emission rates of criteria pollutants and greenhouse gases (CO ₂ , CH ₄ , N ₂ O, and SF ₆) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and all on-site secondary emission sources	Section 4.8.3.3, Impact 4.8-1; Table 4.8-1; Appendix F.1, AQIA	✓ Addressed
(g)(8)(F)	Description of typical operational modes, start-up and shutdown modes, estimated emission rates per mode, and	Section 4.8.3.3; Appendix F.1, AQIA (Section 4.11)	✓ Addressed

	initial commissioning phase (first firing through commercial operations date)		
(g)(8)(G)	Consistency with CARB Climate Change Scoping Plan strategies	Section 4.8.3.3; Table 4.8-2; Table 4.8-3	✓ Addressed
(g)(8)(H)	Mitigation measures for GHG emissions	Section 4.8.4	✓ Addressed
(g)(8)(I)	Cumulative GHG impacts and significance	Section 4.8.6	✓ Addressed
(g)(8)(J)	Supplemental Appendix B disclosure requirements	Section 4.8.5	✓ Addressed
(g)(8)(K)	Additional GHG analysis and supporting documentation	Appendix F.1 (AQIA)	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(8). All criteria addressed in this chapter; full technical disclosure in Air Quality Impact & GHG Analysis (Appendix F.1, AQIA), Quad Knopf, Inc., February 2026.

4.8.5 CEC SPPE Appendix B — Additional Greenhouse Gas Emissions Disclosure Requirements

This section provides the additional Greenhouse Gas Emissions and Air Quality disclosure information required by CEC SPPE Appendix B, Section (g)(8). This information supplements the CEQA impact analysis provided in Sections 4.8.1 through 4.8.4 above. Appendix B, Section (g)(8), requires disclosure of the existing air quality setting, emission rates, control technologies, ambient monitoring data, meteorological data, regulatory consistency, and mitigation measures. Each of these requirements is addressed in the sub-sections below.

Project Consistency with Applicable Plans, Policies, and Regulations — Appendix B (g)(8)(B)

The project would comply with the strategies recommended by the State of California, the USEPA, and the Climate Change Scoping Plan. **Table 4.8-5** below evaluates the Project's consistency with all applicable federal, state, regional, and local plans, policies, and regulations for the purpose of reducing GHG emissions.

Table 4.8-5: Project Consistency with an Applicable Plan, Policy, or Regulation for the Purpose of Reducing Greenhouse Gas Emissions; CARB 2022 Climate Change Scoping Plan and All Applicable Federal, State, Regional, and Local Plans, Policies, and Regulations

Adopted Plan, Policy, or Regulation	Responsible Authority	CEQA Appendix G Criterion	Consistency Determination	Proposed Project Consistency Analysis
▪ FEDERAL ▪				
<i>40 CFR Part 98 — Mandatory Reporting of Greenhouse Gases Rule (USEPA; effective 2010)</i>	U.S. EPA	Criterion (b) Plan/Policy Conflict	Not Applicable	The Project's total on-site GHG emissions (2,379 MT CO ₂ e/year) are well below the 25,000 MT/year reporting threshold under 40 CFR Part 98. The Project is not a covered entity subject to mandatory federal GHG reporting. No conflict exists.
<i>40 CFR Part 52 — Prevention of Significant Deterioration (PSD) / Title V GHG Tailoring Rule (USEPA; effective 2011)</i>	U.S. EPA	Criterion (b) Plan/Policy Conflict	Not Applicable	The project's direct CO ₂ e emissions are well below the 75,000 MT/year PSD threshold and the 100,000 MT/year Title V major source threshold. Federal GHG air permitting requirements are not triggered. No conflict exists.
▪ STATE — STATUTES AND EXECUTIVE ORDERS ▪				
<i>California Global Warming Solutions Act of 2006 (AB 32) (H&SC §§ 38500 et seq.; CARB)</i>	CARB	Criterion (b) Plan/Policy Conflict	Consistent	The Project's total on-site GHG emissions (2,379 MT CO ₂ e/year) are well below the EKAPCD significance threshold of 25,000 MT CO ₂ e/year. The Project is consistent with AB 32.
<i>California Climate Accountability Package — SB 32 (2016) (H&SC § 38566; CARB)</i>	CARB	Criterion (b) Plan/Policy Conflict	Consistent	The Project's total on-site GHG emissions are well below the EKAPCD significance threshold. The Project is consistent with SB 32.
<i>California Climate Crisis Act — AB 1279 (2022) (H&SC § 38562.5; CARB)</i>	CARB / State Legislature	Criterion (b) Plan/Policy Conflict	Consistent	The Project's total on-site GHG emissions are well below the EKAPCD significance threshold. The Project does not impede the statutory goals of AB 1279.
<i>Executive Orders S-3-05 (2005) and B-30-15 (2015) (Governor of California)</i>	Governor's Office	Criterion (b) Plan/Policy Conflict	Consistent	These Executive Orders apply to State agencies. The Project's total on-site GHG emissions are well below the EKAPCD significance threshold. The Project supports their goals through

				compliance with applicable emission control requirements.
<i>Executive Order B-55-18 (2018) — Carbon Neutrality by 2045 (Governor of California)</i>	Governor's Office	Criterion (b) Plan/Policy Conflict	Consistent	The Project's total on-site GHG emissions are well below the EKAPCD significance threshold of 25,000 MT CO ₂ e/year. The Project is consistent with EO B-55-18.
<i>Executive Order S-1-07 (2007) — Low Carbon Fuel Standard (Governor of California / CARB)</i>	CARB	Criterion (b) Plan/Policy Conflict	Consistent	EO S-1-07 established the Low Carbon Fuel Standard (LCFS), requiring a reduction in the carbon intensity of transportation fuels sold in California. Project construction vehicles and O&M fleet vehicles would use fuels compliant with the LCFS. The project does not conflict with the LCFS framework.
▪ STATE — CARB 2022 CLIMATE CHANGE SCOPING PLAN (December 15, 2022) ▪				
<i>CARB 2022 Climate Change Scoping Plan — Overview (Approved December 15, 2022; Authority: AB 32, AB 1279, SB 32)</i>	CARB	Criterion (b) Plan/Policy Conflict	Consistent	The Project's total on-site GHG emissions (2,379 MT CO ₂ e/year) are well below the EKAPCD significance threshold of 25,000 MT CO ₂ e/year. The Project is consistent with the 2022 Scoping Plan.
<i>2022 Scoping Plan — Transportation Sector: Advanced Clean Cars II / ZEV Program</i>	CARB	Criterion (b) Plan/Policy Conflict	Consistent	The 2022 Scoping Plan's transportation sector strategies require 100% zero-emission new passenger car and light-duty truck sales by 2035. Project construction and O&M employees would purchase and operate vehicles in compliance with applicable CARB vehicle emission standards. The project does not conflict with ZEV or Advanced Clean Cars II standards.
<i>2022 Scoping Plan — Electricity Sector: Renewables Portfolio Standard (RPS) (SB XI-2, SB 350, SB 100, SB 1020)</i>	CPUC / CEC	Criterion (b) Plan/Policy Conflict	Indirectly Consistent	The RPS is applicable to retail electricity sellers, not to the Project directly. The Project does not conflict with RPS requirements.
<i>2022 Scoping Plan — Electricity Sector: Grid Decarbonization and Clean Energy Deployment</i>	CPUC / CEC / CARB	Criterion (b) Plan/Policy Conflict	Consistent	The Project's total on-site GHG emissions are well below the EKAPCD significance threshold. The Project does not conflict with grid decarbonization strategies.

<i>2022 Scoping Plan — Buildings Sector: Building Decarbonization / CALGreen (Title 24)</i>	CEC / California Building Standards Commission	Criterion (b) Plan/Policy Conflict	Consistent	The 2022 Scoping Plan calls for phasing out fossil gas in new buildings and accelerating building electrification. Any project facilities (e.g., O&M building) would comply with applicable CALGreen mandatory provisions and Title 24 energy efficiency standards. The project itself is a renewable electricity generating facility that supports the broader electrification strategy.
<i>2022 Scoping Plan — Industrial Sector: High-GWP Gas Reduction / SF₆ Leak Reduction (17 CCR § 95340 et seq.)</i>	CARB	Criterion (b) Plan/Policy Conflict	Consistent	The 2022 Scoping Plan continues CARB's High-GWP gas reduction strategy, including SF ₆ controls for gas-insulated switchgear. The project substations may utilize circuit breakers containing SF ₆ gas as an electrical insulator. Consistent with this strategy, the Project would comply with all applicable CARB regulatory requirements governing SF ₆ -containing switchgear, including limits on leakage rates and best management practices for SF ₆ recovery and handling.
<i>2022 Scoping Plan — Natural and Working Lands / Carbon Capture</i>	CARB / Multiple Agencies	Criterion (b) Plan/Policy Conflict	Not Applicable	The Project is a data center facility and does not involve land management, forestry, wetland restoration, or mechanical carbon capture activities. This strategy is not applicable to the Project.
<i>2022 Scoping Plan — Short-Lived Climate Pollutants (SLCPs): HFC Reduction; Methane Controls (SB 1383)</i>	CARB	Criterion (b) Plan/Policy Conflict	Not Applicable	The Project is a data center facility. It does not involve refrigeration, cold chain logistics, dairy operations, landfills, or other primary sources of HFC or methane emissions addressed by SB 1383 and SLCP strategies. This strategy is not applicable to the Project.
▪ STATE — OTHER APPLICABLE REGULATIONS ▪				
<i>SB 1368 — GHG Emissions Performance Standard (EPS) (Pub. Util. Code § 8340; CPUC)</i>	CPUC	Criterion (b) Plan/Policy Conflict	Consistent	SB 1368 establishes a GHG Emissions Performance Standard (EPS) of 1,100 lbs CO ₂ e/MWh for publicly owned or leased electricity generating facilities. The Project is a data center that consumes electricity from the SCE grid; it is not an electricity generating facility subject

				to the EPS. The Project does not conflict with SB 1368.
<i>Advanced Clean Cars II Regulation (CARB Resolution 22-12, August 25, 2022; 13 CCR §§ 1900 et seq.)</i>	CARB	Criterion (b) Plan/Policy Conflict	Consistent	The Advanced Clean Cars II Regulation requires 100% zero-emission new passenger car and light-duty truck sales in California by 2035, with increasing percentages beginning in 2026. Project employees and contractors accessing the Project site would use vehicles compliant with CARB standards in effect at the time of purchase. The project does not conflict with this regulation.
<i>SB 97 — CEQA: Greenhouse Gas Emissions Analysis (Pub. Resources Code § 21083.05; 14 CCR §§ 15064.4, 15183.5)</i>	OPR / Natural Resources Agency	Criteria (a) & (b)	Consistent	SB 97 required OPR and the Natural Resources Agency to develop CEQA Guidelines for GHG emissions analysis and mitigation. This document (Section 4.8) has been prepared in full compliance with those Guidelines, as codified in 14 CCR § 15064.4 and § 15183.5. GHG emissions have been quantified using CalEEMod version 2022.1.1.37, compared to the applicable EKAPCD significance threshold, and evaluated against all applicable GHG reduction plans and policies.
▪ REGIONAL ▪				
<i>KCOG 2018 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) (SB 375, Pub. Resources Code § 21155; CARB-accepted 2015)</i>	KCOG / CARB	Criterion (b) Plan/Policy Conflict	Consistent	The Project is a data center facility and does not involve residential, commercial, or mixed-use land development. The Project would not conflict with the goals and policies of the 2018 RTP/SCS and would not alter local transportation patterns or land use during operation.
▪ LOCAL ▪				
<i>EKAPCD — Addendum to CEQA Guidelines: Addressing GHG Emission Impacts for Stationary Source Projects When Serving as Lead CEQA Agency (March 2012)</i>	EKAPCD	Criterion (a) GHG Generation	Consistent	The EKAPCD 2012 CEQA Guidelines Addendum establishes a project-level GHG significance threshold of 25,000 MT CO ₂ e/year for stationary source projects. Total on-site project GHG emissions are 2,379 MT CO ₂ e/year, well below the 25,000 MT CO ₂ e/year threshold. The Project

				is consistent with the EKAPCD significance threshold.
<i>Kern County General Plan — Air Quality Element: Chapter 1, Policies 18 and 19; Measures F, G, H, J</i>	Kern County	Criterion (b) Plan/Policy Conflict	Consistent	The Kern County General Plan Air Quality Element requires consideration of air quality implications for discretionary land use proposals and encourages use of emission reduction strategies. The project would comply with applicable air quality measures and emission reduction requirements. The project is consistent with the Kern County General Plan Air Quality Element policies, goals, and implementation measures.
<i>Kern County General Plan — Energy Element: Chapter 5, Goal 1; Policies 1 and 3</i>	Kern County	Criterion (b) Plan/Policy Conflict	Consistent	The Kern County General Plan Energy Element Goal 1 encourages safe and orderly commercial energy development. Policy 1 encourages energy uses to conserve fossil fuels and improve air quality. Policy 3 supports energy development in the desert planning region. The Project is consistent with the Kern County General Plan Energy Element.
<i>Inyokern Specific Plan — Land Use, Open Space, and Conservation Element: Goal 1; Policy 5 (Kern County; incorporated by reference into SPPE application)</i>	Kern County / CEC	Criterion (b) Plan/Policy Conflict	Consistent	As a data center facility permitted through the CEC SPPE process, the Project directly implements Inyokern Specific Plan Policy 5 and is consistent with Goal 1.

ABBREVIATIONS: BACT = Best Available Control Technology; CARB = California Air Resources Board; CEC = California Energy Commission; CEQA = California Environmental Quality Act; CFR = Code of Federal Regulations; CO_{2e} = Carbon Dioxide Equivalent; CPUC = California Public Utilities Commission; DPF = Diesel Particulate Filter; EKAPCD = Eastern Kern Air Pollution Control District; EPS = Emissions Performance Standard; GHG = Greenhouse Gas; H&SC = Health and Safety Code; KCOG = Kern Council of Governments; LCFS = Low Carbon Fuel Standard; MT = Metric Ton; MW-AC = Megawatt Alternating Current; NSR = New Source Review; O&M = Operations and Maintenance; OPR = Office of Planning and Research; PV = Photovoltaic; RPS = Renewables Portfolio Standard; SCE = Southern California Edison; SCR = Selective Catalytic Reduction; SF₆ = Sulfur Hexafluoride; SLCP = Short-Lived Climate Pollutant; SPPE = Small Power Plant Exemption; ZEV = Zero-Emission Vehicle.

SOURCE: CARB, 2022 Climate Change Scoping Plan for Achieving Carbon Neutrality (December 2022); USEPA 40 CFR Parts 52 and 98; California H&SC §§ 38500 et seq.; 20 CCR Title 20, Chapter 5, Appendix B (CEC SPPE); EKAPCD CEQA Guidelines Addendum (March 2012); Kern County General Plan (Air Quality and Energy Elements); Inyokern Specific Plan; KCOG 2018 RTP/SCS.

Air Quality Setting, Attainment Status, and Emission Inventory — Appendix B (g)(8)(A)

Appendix B, Section (g)(8)(A) requires the information necessary for the air pollution control district where the project is located to complete a Determination of Compliance. The EKAPCD is the air pollution control district with jurisdiction over the Project site. The existing air quality setting, including the MDAB location, attainment/non-attainment designations for all criteria pollutants, ambient monitoring data from six CARB-certified monitoring stations (2022–2024), and the regional emission inventory context, is described in Section 4.8.1 of this chapter. The full technical setting information, including Tables 3-1 through 3-4 of the AQIA, is provided in Appendix F.1 (Air Quality Impact Analysis, Quad Knopf, Inc., February 2026).

Key attainment designations for the EKAPCD area (which encompasses the Project site) are: Serious Nonattainment for 8-hour ozone (2008 NAAQS, 0.075 ppm); Nonattainment under state standards for 1-hour and 8-hour ozone and PM₁₀; and Unclassifiable/Attainment for CO, PM_{2.5}, NO₂, and SO₂ under the NAAQS. These designations are documented in Appendix F.1, Table 3-2 (EKAPCD 2018). The AQIA and associated air quality permit application to EKAPCD provide the information required to complete a Determination of Compliance for the Project.

GHG and Criteria Pollutant Emission Rates and Control Technologies — Appendix B (g)(8)(B–E)

Appendix B, Section (g)(8)(B) requires the heating value and chemical characteristics of the proposed fuels, stack height and diameter, exhaust velocity and temperature, heat rate, and expected capacity factor of the proposed facility. The Project's emergency diesel generators (40 units at 3.0 MW each, totaling 120 MW backup generation capacity) use ultra-low sulfur diesel (ULSD) or renewable diesel fuel. Fuel characteristics, stack parameters, exhaust conditions, and operational specifications are provided in Appendix F.1, Section 4 and the supporting generator documentation.

Appendix B, Section (g)(8)(C) requires a description of the control technologies proposed to limit the emission of criteria pollutants. As described in Section 4.8.2.4 of this chapter, the Project's emergency standby diesel generators would be equipped with Selective Catalytic Reduction (SCR) catalyst systems and Diesel Particulate Filters (DPF), meeting EPA/CARB Tier 4 Final emission standards — the most stringent emission standard currently achieved in practice for this equipment class. This constitutes BACT as determined by EKAPCD under Rule 210.1.

Appendix B, Section (g)(8)(D) requires a description of the cooling system, estimated cooling tower drift rate, water flow rate, and maximum dissolved solids concentrations. The Project utilizes hybrid (high and low temperature) cooling towers and chillers with potable water from the Inyokern CSD. Detailed cooling system specifications, drift rates, and water quality parameters are provided in Appendix F.1, Section 4 of the AQIA.

Appendix B, Section (g)(8)(E) requires the emission rates of criteria pollutants and greenhouse gases (CO₂, CH₄, N₂O, and SF₆) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and all on-site secondary emission sources. Annual GHG emission rates from each source category are presented in Table 4.8-1 of this chapter (restating AQIA Table 4-14). Full criteria pollutant and GHG emission rate tables by source are provided in Appendix F.1, including Tables 4-3 through 4-14 covering construction and operational emissions from all source categories (emergency generators, cooling towers, refrigerant leakage, mobile sources, area sources, and fuel storage).

Operational Modes and Initial Commissioning Phase — Appendix B (g)(8)(F)

Appendix B, Section (g)(8)(F)(i) requires a description of typical operational modes and start-up and shutdown modes, including estimated frequency of occurrence, duration, and estimated emission rate for each criteria pollutant during each mode. The Project's primary operational mode is 24/7 continuous data center operations drawing power from the SCE grid interconnection. The emergency diesel generators operate only during grid outages and for periodic load testing, as authorized under EKAPCD Rule 210.1 (not to exceed 200 hours per year for emergency use). Criteria pollutant emission rates during emergency generator operation are documented in Appendix F.1, Section 4, including emissions during start-up and shutdown transients.

Appendix B, Section (g)(8)(F)(ii) requires a description of the Project's planned initial commissioning phase, defined as the period between the first firing of emissions sources and the commercial operations date, including the types and durations of equipment tests, criteria pollutant emissions, and monitoring techniques to be used during such tests. The Project's initial commissioning phase would begin upon first firing of the emergency diesel generators and conclude upon achievement of commercial operations. Commissioning activities are intended to verify proper installation, system integration, reliability, and compliance with manufacturer specifications and applicable air quality permit conditions. Commissioning activities include limited emergency simulation scenarios and generator load testing. Commissioning emissions are included in the Project's overall construction emission estimates and are documented in Appendix F.1, Section 2.

Ambient Air Quality Data and Meteorological Data — Appendix B (g)(8)(G–H)

Appendix B, Section (g)(8)(G) requires the ambient concentrations of all criteria pollutants for the previous three years as measured at the three Air Resources Board certified monitoring stations located closest to the Project site, and an analysis of whether this data is representative of conditions at the Project site. Ambient air quality monitoring data for the three-year period 2022 through 2024 was obtained from six CARB-certified monitoring stations in proximity to the Project site: Ridgecrest-Ward, Trona-Athol and Telegraph, Mojave-Pat Avenue, Mojave-CA 58 Business, Lancaster-Fairgrounds, and Barstow. Monitoring data for O₃, PM₁₀, PM_{2.5}, CO, NO₂, and other pollutants is presented in Appendix F.1, Table 3-3. The AQIA includes an analysis confirming that the monitoring data is representative of conditions at the Project site.

Appendix B, Section (g)(8)(H) requires one year of meteorological data collected from either the Federal Aviation Administration Class 1 station nearest to the project or from the project site, or meteorological data approved by CARB or the local air pollution district. Meteorological data for the Project site is derived from the Inyokern monitoring station, which is the nearest representative station. The Inyokern station period-of-record climate summary (November 1940 – December 2012) is presented in Appendix F.1, Table 3-4. One year of hourly meteorological data, approved for use in AERMOD dispersion modeling by EKAPCD, is provided in Appendix F.1, Section 3.3 and the supporting modeling files.

4.8.6 Cumulative Setting, Impacts and Mitigation Measures

By its very nature, air pollution has a cumulative impact. The District's nonattainment status is a result of past and present development within the MDAB. Furthermore, attainment of ambient air quality standards can be jeopardized by increasing emissions-generating activities in the region. No single project would be sufficient in size, by itself, to result in nonattainment of the regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development within the Basin. See Appendix N.3 (Cumulative Projects and Cumulative Impacts Analysis) for the full list of past, present, and reasonably foreseeable projects considered in the cumulative greenhouse gas emissions analysis.

When assessing whether there is a new significant cumulative effect, the Lead Agency shall consider whether the incremental effects of the project are cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects [CCR §15064(h)(1)]. Per CEQA Guidelines §15064(h)(3), a Lead Agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program, including, but not limited to an air quality attainment or maintenance plan that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the Project is located.

Attachment A of Kern County's Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports states "The following threshold are defined for purposes of determining cumulative effects as the baseline for 'considerable'. Projects in Kern County Air Pollution Control District will be subject to the following significance thresholds." The thresholds outlined in the guidelines mirror the individual project significance thresholds of 15 tons per year for PM₁₀ and 25 tons per year for NO_x and ROG. Therefore, owing to the inherently cumulative nature of air quality impacts, the threshold for whether a project would make a cumulatively considerable contribution to a significant cumulative impact is simply whether the project would exceed project-level thresholds. Additionally, the EKAPCD Guidelines for Implementation of CEQA also states that "Unless otherwise specified in published/adopted thresholds of significance

and guidelines, a project's potential contribution to cumulative impacts shall be assessed utilizing the same significance criteria as those for project specific impacts."

Based on the analysis conducted for the Project, it is individually less than significant. This AQIA, however, also considered impacts of the proposed Project in conjunction with the impacts of other projects previously proposed in the area. The following cumulative impacts were considered:

- Cumulative O₃ Impacts (ROG and NO_x) from numerous sources within the region including transport from outside the region. O₃ is formed through chemical reactions of ROG and NO_x in the presence of sunlight.
- Cumulative CO Impacts produced primarily by vehicular emissions.

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Emissions of GHGs and their contribution to global climate change are considered a cumulative impact by definition. Therefore, the geographic extent of the Project's cumulative area of impact would be worldwide.

The adopted CEQA Guidelines provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and global climate change impacts. Quantitative significance thresholds for this impact area have not been adopted by the State of California. In addition, Kern County has not adopted quantitative thresholds for determining significance of GHG emissions at the time of this writing. However, EKAPCD has recently adopted an addendum to its CEQA Guidelines titled Addressing GHG Emission Impacts for Stationary Source Projects When Serving as the Lead CEQA Agency. This addendum is the policy that EKAPCD will use when it is the lead agency for CEQA to determine the project-specific and cumulative significance of GHG emissions from new and modified stationary source (industrial) projects. Under this policy, a project is considered to have a cumulatively considerable impact if it generates 25,000 MTCO₂e or more per year.

The main contribution of GHG emissions from the Project would be from construction equipment usage during the construction phase and motor vehicle trips by employees during project operations. The Project's emissions would contribute to the increase in emissions in the transportation sector. Construction emissions would be temporary and would cease at the end of construction activities.

As shown in **Table 4.8-1**, the Project's total on-site GHG emissions of 2,379 MT CO₂e per year are well below the EKAPCD significance threshold of 25,000 MT CO₂e per year. As documented in the AQIA (Appendix F.1), EKAPCD uses a single threshold for the determination of significance for both project-specific and cumulative impacts. A qualitative

evaluation of the cumulative projects supports the finding that the Project's incremental contribution to cumulative GHG impacts would not be cumulatively considerable. Cumulative impacts of the Project on global climate change would be less than significant.

Other projects in the cumulative study area would be subject to their own CEQA review requirements and applicable local and state regulations.

Mitigation Measures: No mitigation would be required; however, implementation of Mitigation Measure MM 4.3-3 would further reduce GHG emissions from construction activities. (See Section 4.3, Air Quality, for full text of Mitigation Measure MM 4.3-3).

Level of Significance: Impacts would be *less than significant*.

4.9 HAZARDS AND HAZARDOUS MATERIALS

Introduction

This section of this Application describes the affected environment and regulatory setting for hazards and hazardous materials of the Project. It also describes the Project's potential impacts on the environment and sensitive receptors that could be exposed to hazards and hazardous materials discussed in this section and presents mitigation measures where applicable. For a discussion of geologic and soil-related hazards, see Section 4.7, *Geology and Soils*) and see Section 4.20, *Wildfire* for a more detailed discussion about wildfire. Information in this section is based the Project Description, the Wildfire Assessment (Appendix D.2), the Thermal Plume Analysis (Appendix E.4), the Visual & Lighting Analysis (Appendix I.1), and the Phase I Environmental Site Assessment dated January 28, 2026 (Phase I Assessment, Appendix J.1), in addition to other source and background information.

CEC SPPE Appendix B — Section (g)(10) Applicability

Applicable Requirement: CCR Title 20, Division 2, Chapter 5, Appendix B, Section (g)(10) — Hazardous Materials Handling

(A) A list of all materials used or stored on-site which are hazardous or acutely hazardous, as defined in Title 22, California Code of Regulations, § 66261.20 et seq., and a discussion of the toxicity of each material.

(B) A map at a scale of 1:24,000 depicting the location of schools, hospitals, day-care facilities, and long-term health care facilities, within the area potentially affected by any release of hazardous materials.

(C) A discussion of the storage and handling system for each hazardous material used or stored at the site.

(D) The protocol that would be used in modeling potential consequences of accidental releases that could result in off-site impacts. Identify the model(s) to be used, a description of all input assumptions, including meteorological conditions. The results of the modeling analysis can be substituted after the application is complete.

(E) A discussion of whether a risk management plan (Health and Safety Code § 25531 et seq.) would be required, and if so, the requirements that will likely be incorporated into the plan.

(F) A discussion of measures proposed to reduce the risk of any release of hazardous materials.

(G) A discussion of the fire and explosion risks associated with the Project.

All Section (g)(10) requirements are addressed in this chapter. The CEQA analysis provided in Sections 4.9.1–4.9.4. The Appendix B supplemental disclosure is provided in Section 4.9.5. A compliance cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.9-A, immediately preceding Section 4.9.4.

4.9.1 Environmental Setting

Regional Setting

Kern County is located in southern California, at the southern end of California's San Joaquin Valley. Kern County is California's third-largest county in land area, and at 8,172 square miles, is larger than the land area of Massachusetts, New Jersey, or Hawaii. It is also larger than the areas of Delaware, Rhode Island, and Connecticut combined (California State Association of Counties, 2014). Elevations range from a low of 206' above sea level along the northern border of the county to a high of 8824' in southwest Kern County, just north of the summit of Mt. Pinos (the summit is in Ventura County). The County is bordered by Los Angeles and Ventura Counties on the south, San Bernardino County on the east, Inyo, Tulare and Kings Counties on the north, and San Luis Obispo and Santa Barbara Counties on the west.

Kern County is as diverse as it is large. Terrain varies dramatically within the County, from the fertile lowlands of the San Joaquin Valley, rugged mountain peaks of the southern Sierra Nevada and Tehachapi mountains, to the sweeping panoramas of the Mojave Desert. The County contains the San Joaquin Valley, the Mojave Desert, and interspersed mountain regions. The San Joaquin Valley floor comprises most of the western third of the County and is the population and agricultural center. Mountain ranges include the Sierra Nevada Range, the Tehachapi Range, Temblor Range, El Tejon Mountains, and Tecuya Ridge. The Mojave Desert covers roughly the eastern quarter of the County. Many of the hazards experienced throughout Kern County are more prevalent in one region or another. For example, the mountain region is more susceptible to wildfires while the valley region may be more impacted by drought.

The Kern County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) 2020 Update

The MJHMP 2020 Update identifies the natural hazards that pose the greatest risk to Kern County and its participating jurisdictions. Through a structured hazard prioritization process, the Planning Committee evaluated hazards based on probability of occurrence, magnitude and severity, geographic extent, speed of onset, and availability of warning. The prioritization process resulted in identification of high-priority county-wide hazards that are fully profiled in the Plan, as well as hazards determined to be rare, negligible, or better addressed through other planning mechanisms. **Table 4.9-1** below summarizes the hazard prioritization results for Kern County.

**Table 4.9-1: Hazard Prioritization
(Restating Table 4-2, MJHMP, 2020 Update)**

Table 4-2. Hazard prioritization

Hazard Type	Explanation
Climate Change	High priority county-wide, profiled as part of Flood, Wildfire, and Severe Weather hazard.
Dam failure	High priority county-wide, profiled hazard.
Drought	High priority county-wide, profiled hazard
Dust Storms	High priority county-wide; profiled as part of Severe Weather
Earthquake/ Geologic Hazards	High priority county-wide, profiled hazard
Extreme Heat	Profiled as part of Severe Weather hazard
Extreme Cold	Extreme cold is rare in Kern County and not profiled in this plan
Flood	High priority county-wide, profiled hazard
Hail	Hail events are rare in Kern County and not profiled in this plan
Fog	While fog events do occur within Kern County, they are rare and are not considered a priority
Hazardous Material	While hazardous materials can release and impact the County, there are better avenues to address this hazard outside this plan.
High Winds/ Straight Line Winds	High priority county-wide, profiled as part of Severe Weather
Insect Hazards	While insects including Africanized honeybee and pine bark beetle exist in Kern County, this was not considered a priority and pests are not profiled in this plan
Levee Failure	High priority county-wide, profiled as part of Dam Failure
Lightning	Lightning was not identified as a priority for this plan.
Pandemic Disease	While pandemic disease can impact the County, there are better avenues to address this hazard outside this plan. <i>See Note after table for additional info.</i>
Radon	This hazard was not identified as a priority
Severe Thunderstorm	Severe thunderstorms are rare in Kern County and not profiled in this plan.
Slope Failure	High priority county-wide, profiled hazard
Soil Hazards	High priority county-wide, profiled hazard
Terrorism/Human Caused Threats	While terrorism is certainly a threat to the County and participating jurisdictions, it is best addressed in other plans as this HMP does not address human caused threats.
Tornado	Impacts to the County from tornados are extremely unlikely, if any.
Volcanic Activity	Due to distance from volcanoes and the limited chance of an eruption, this hazard was not identified as a priority.
Wildfire	High priority county-wide, profiled hazard
Winter Storm / Freeze Events	Profiled as part of Severe Weather hazard

Local Setting

The Project Site is approximately 50+/- acres comprised of four vacant parcels: 084-010-43, 084-010-44, and a portion of 084-010-45 AND 084-010-48. It is zoned Medium Industrial, Precise Development Combining (Kern County, 2025) and is located along State Route 178 in the unincorporated community of Inyokern, Kern County.

Adjacent land uses include the following: Northern Perimeter: RB Solar Project, vacant land and the Inyokern Airport and a water retention basin located to the north; Eastern Perimeter: Vacant, undeveloped land between Project Site and US 395; Western Perimeter: Brown Road and retail commercial buildings and single family residential; and Southern Perimeter: gas station and convenience store abutting the southern perimeter. A retail hardware store and storage yard across SR-178 to the south of the Project Site.

Sensitive receptors include a single family residence is located approximately 500 feet east of the Project site across United States Highway 395 (US 395) and Clodt Road. The closest school to the Project site is Inyokern Elementary School, located approximately ~0.8 miles southwest of the Project site in the community of Inyokern, and the Inyokern Senior Center at approximately 0.8 miles southwest. The nearest airport to the Project site is the Inyokern Airport, located approximately 0.30 miles west of the Project site. The Project site is approximately 8 miles west of the China Lake Naval Air Weapons Station (NAWS). US 395 runs adjacent to the east border of the northern property. State Route 14 (SR-14) is located approximately 3.2 miles east of the Project.

Physical setting characteristics of the Project Site relevant to hazards and hazardous materials include:

- **Topography:** Relatively flat, with a downward slope from south to north. Approximately 2,430 feet mean sea level (msl).
- **Soil Type:** Typic Torriorthents and Typic Haplargids; thermic fan piedmonts.
- **Geology:** The Project Site is located within the western tip of the Mojave Desert Geomorphic Province of California. The Mojave is a broad interior region of isolated mountain ranges separated by expanses of desert plains. It has an interior enclosed drainage and many playas. The Mojave province is wedged in a sharp angle between the Garlock Fault (southern boundary Sierra Nevada) and the San Andreas Fault, where it bends east from its northwest trend. The northern boundary of the Mojave is separated from the prominent Basin and Range by the eastern extension of the Garlock Fault. There are two important fault trends that control topography a prominent NW-SE trend and a secondary east-west trend (apparent alignment with Transverse Ranges is significant).
- **Hydrogeology:** The Project Site is located within the Indian Wells Valley Groundwater Basin (6-054). The basin is a closed, internally drained basin bounded by outcrop of igneous and metamorphic basement rock complexes. The Sierra Nevada Range bounds the basin on the west, the Coso Range on the north, the Argus Range on the east, and the El Paso Mountains on the south. China Lake, a perennial lake, is situated in the central northeastern valley and is the primary natural groundwater discharge point. The nearest dam to Inyokern, CA is the Isabella Dam (or Lake Isabella Main Dam), located approximately 45–50 miles west in Lake Isabella, CA. It is owned by the U.S. Army Corps of Engineers and regulates the Kern River, with a total capacity of 568,000 acre-feet.

- **Estimated Groundwater Access:** Based on groundwater monitoring for the nearby Beck Oil facility (approximately 2,200 feet south of the Project Site), groundwater in some Inyokern Community Services District wells (located approximately 1,000-1,600 feet north of the that site and 600-1,200 feet south of the Project Site) in March 2019 existed at an elevation of approximately 2,179 feet mean sea level (msl). Given an elevation of approximately 2,455 feet, groundwater existed at a depth of approximately 276 feet below ground surface.
- **Hydrogeologic Gradient:** According to the Draft Base wide Investigation of Per- and Polyfluoroalkyl Substances report dated August 2019, shallow groundwater flow is generally to the northeast. For the purposes of this report, groundwater flow is assumed to flow to the northeast.
- **Historical Uses:** Based on an analysis of historical topographic maps and historical aerial photographs, more particularly described in the Phase I Assessment, the Project site and vicinity consisted of undeveloped land from at least the early-1940s through the late-1940s. The site was developed with railroad tracks on the southern portion and western boundary of the site at some time in the early 1950s. The railroad tracks are no longer visible in the 1972 aerial photograph. An apparent approximately 200 by 350-foot pit is visible in the aerial photographs from the mid-1980s through the present. The pit was reportedly associated with the development of the off-ramp adjacent to the eastern boundary of the pit (Terracon, 2015). Brown Road to the west and Inyokern Road are visible in the 1952 aerial photograph, as well as railroad tracks just west of the site. Multiple dirt trails and roads are present on the site in the northern and southern portions of the property since the 1950s. Permanent structures may have been present on the site from 1952 through 2000. US 395 on- and off-ramps appear to be present adjacent to the eastern borders of the site around the mid-1970s. SR-178 is evident in the 1984 aerial of the Project site (SEI, 2014).

The surrounding properties consisted of undeveloped land with railroad tracks and a paved road to the west from at least the early-1940s through the early-1950s, when the property to the southwest was developed with a recreational vehicle and mobile home park. By the early 1970s, the railroad tracks to the west had been cleared and the property to the east was developed with a highway and single-family residences. By the mid-2000s, the property to the north was developed with appears to be water treatment facility. The surrounding properties have remained relatively unchanged through the present.

- **Fire History:** According to EDR's Certified Sanborn® Map Report dated January 28, 2026. The EDR Certified Sanborn® Map Report is dated October 2025. Fire insurance maps covering the Project Site were not found in their Sanborn Library. A copy of the Certified Sanborn® Map Report is included in Appendix A of the Phase I Assessment.
- **Emergency Access and Public Services:** Primary emergency access is SR-178 / West Inyokern Road; secondary access is Brown Road. Nearest fire response is Kern County Fire Station 83; nearest emergency room is Ridgecrest Regional Hospital. Final site-

specific fire apparatus access must comply with California Fire Code Chapter 5 and Kern County Fire Marshal requirements including turning radii and surface specifications for heavy apparatus.

- **Wildfire Hazard Setting:** The Project site is in the eastern Kern County high desert within Kern County's Local Responsibility Area (LRA). Kern County Fire has published updated FHSZ maps per SB 63 (Stern, 2021). The specific designation for the Project parcel should be confirmed against current Kern County LRA FHSZ maps and the CAL FIRE SRA maps. Despite Inyokern's generally low vegetation fuel load, the presence of 600,000 gallons of diesel on-site means ember intrusion or nearby brushfire could pose ignition risk. Fuel storage design must address ember management, defensible clearance, and storage security under NFPA 30 and the California Fire Code regardless of formal FHSZ classification.

Key Findings of Phase I Assessment: The Phase I Assessment identified three Recognized Environmental Conditions (RECs) including a former on-site structure and the presence of asphalt road debris, concrete rubble, and tires. The Assessment confirmed the property was not listed on DTSC EnviroStor or SWRCB GeoTracker at the time of assessment. These RECs are relevant to CERCLA liability and construction-phase hazard management and are addressed in the sections related to impact and CERCLA and 17.0. The Phase I Assessment was conducted in general conformance with the scope and limitations of ASTM practice E 1527-21. The following acronyms apply to this summary of the Phase I Assessment:

- **Recognized Environmental Condition (REC):** The presence or likely presence of hazardous substances or petroleum products in, on, or at a property due to a release, potential release, or migration.
- **Controlled Recognized Environmental Conditions (CREC):** A REC that has been addressed, but where hazardous substances are allowed to remain in place under controlled conditions (e.g., engineering controls, land use restrictions).
- **Historical Recognized Environmental Conditions (HREC):** A past release of hazardous substances that has been addressed to the satisfaction of regulatory authorities, without, or having met, unrestricted use criteria.
- **Vapor Encroachment Condition (VEC):** refers to the presence or likely presence of volatile chemicals of concern (COCs) in the subsurface, posing a risk of migrating into buildings. It is a screening tool under ASTM E2600-15 and E2600-22 to identify potential vapor intrusion into buildings.

The Phase I Assessment identified three (3) RECs in connection with the Project Site. The RECs are listed below and are illustrated on Figure 2 of the Phase I Assessment:

1. 1943 Topographic Map Structure – Potential Termiticide and/or Lead-based Paint
2. Asphalt road debris and concrete rubble – Potential Hazardous Materials
3. A small pile of tires

The Phase I Assessment did not identify a CREC, HREC, or VEC in connection with the Project Site. In addition, following were identified six (3) RECs in the vicinity of the Project Site. The

RECs are as follows:

1. Railroad - Potential Petroleum Product and/or Hazardous Material Release
2. Former Oil Tanks in 1943 Topographic Map - Potential Petroleum Product Release
3. China Lake NAWS (Adjacent North) - Potential Petroleum Product and/or Hazardous Material Release
4. Inyokern Chevron/ Gateway Mkt. /AT&T Mobility - China Lake/ The Barn Inyokern (6259 Hwy. 178)- Potential Petroleum Product Release
5. Shell Service Station/ Paul's Inyokern 76 / Suburban Propane - Inyokern / Texaco Service Station / Shawn's Auto Repair/ Dry Lake Trucking Inc. (Hwy. 178 and Brown Rd.) - Potential Petroleum Product Release
6. Inyokern Market (1353 Brown Rd.) - Potential Petroleum Product Release

The Assessment identified one (1) CREC and one (1) VEC in the vicinity of the Project Site identified as Kern County Roads Department (1533 2nd St.) - Petroleum Product Release. No HRECs were identified in the vicinity of the Project Site.

Based on the intended use of the Project Site as a data center, the Phase I Assessment recommends that the asphalt road debris, concrete rubble and small pile of tires be removed from the Project Site and disposed of at appropriately permitted facilities and in accordance with local, State and federal laws and regulations. During the removal, it is also recommended observation of the soil beneath the debris for evidence of contamination (i.e. staining, odor, etc.). If during future Subject Property development activities evidence of contamination is discovered, the signatories of this Report should be contacted immediately for further consultation. Excess soil should not be hauled off the Project Site for reuse or disposal without adequate environmental evaluation. Based on the findings of the Phase I Assessment, additional investigation (i.e. Phase II ESA) was not recommended.

Inyokern Community Services District (District)

The Inyokern Community Services District (District) operates a publicly owned treatment works (POTW) subject to pretreatment standards under 40 C.F.R. Part 403 and state law. The Will Serve Letter (executed April 2, 2026) expressly conditions service on the Applicant's submission of a Wastewater Characterization Report no later than 30 days prior to commencement of construction, with the District reserving the right to require a Significant Industrial User (SIU) permit for cooling tower blowdown. The District has specifically requires that battery energy storage systems present on-site shall be assessed for potential fluoride, lithium, and PFAS contributions to the waste stream — representing an early, third-party regulatory signal that battery chemistry confirmation is time-sensitive.

Per the Inyokern CSD executed Will Serve Letter (April 2, 2026), a Wastewater Characterization Report covering cooling tower blowdown chemistry and BESS fluoride/lithium/PFAS contributions must be submitted to the District no later than 30 days prior to commencement of construction (currently anticipated April 2027, making the report due approximately March 2027). This is a binding condition of service — failure to meet it could delay construction commencement.

Hazardous Materials Transportation

US 395 runs adjacent to the east border of both property sites, and SR-178 (or Inyokern Road) to the south of the property site. The Project site would be directly accessed from Inyokern Road and/or Brown Road. Other major north-south roadways in the region are SR-14, a four-lane highway located approximately 3.2 miles west of the Project Site. The transportation of hazardous materials within the State of California is subject to various federal, State, and local regulations. It is illegal to transport explosives or inhalation hazards on any public highway that is not designated for that purpose, unless the use of a highway is required to permit delivery or the loading of such materials (California Vehicle Code, Sections 31602 (b) and 32104(a)). The California Highway Patrol (CHP) designates through routes to be used for the transportation of hazardous materials. Information on CHP requirements and regulatory authority is provided in the section relating to *Regulatory Setting*, below. According to Section 2.5.4 of the Kern County General Plan Circulation Element, US 395 is designated as an adopted commercial hazardous materials shipping route.

Airports

The nearest public airport to the Project site is Inyokern Airport, located approximately 0.30 miles west of the Project site. It is owned and operated by the Indian Wells Valley Airport District, and serves the northeastern communities of Kern County, California. The airport covers 1,640 acres at an elevation of 2,457 feet, with three asphalt paved runways that can accommodate almost any class of civilian, commercial, or military aircraft. In operation since 1935, the airport serves an average of 78 flight operations per day. According to the Kern County Airport Land Use Compatibility Plan (ALUCP), the Project site is located within Zone C of the Inyokern Airport Influence Area.

The ALUCP provides restrictions and criteria for development of land within each of the Compatibility Zones including density limits, height limits, and restrictions on uses which may be inappropriate due to the types of users normally associated with each use such as schools, hospitals, and nursing homes. Projects located within an Airport Influence Area must also meet the requirements of Federal Aviation Regulation 14 Code of Federal Regulations (CFR) Part 77, described below.

Another nearby airport is the NAWS China Lake, located approximately 8 miles east of the Project site and is managed by the United States Navy. All aircraft operations at NAWS China Lake are conducted at Armitage Field, a military airfield, which has three runways with more than 26,000 feet (7,900 meters) of taxiway. This airport has been in operation since 1952. The Project site is located within a large complex of airspace associated with the NAWS China Lake, approximately 20,000 square miles, known as the R-2508 Complex.

Fire Hazard Area

The California Department of Forestry and Fire Prevention requires counties within the State to

develop fire protection management plans that address potential threats of wildland fires. The Kern County Wildland Fire Management Plan identifies federal, State, and local responsibility areas for the entire County to facilitate coordination efforts for fire protection services. The Project site is sparsely vegetated and not within an area identified by the California Department of Forestry and Fire Protection as having substantial or very high fire risk, as determined by the Kern County General Plan or CAL FIRE (CAL FIRE, 2022).

Water Demand and Wastewater Generation — Inyokern CSD Will Serve Data

The Inyokern CSD Will Serve Letter (executed April 2, 2026) provides the following planning-level water and sewer service data, which are incorporated into this study as the best available quantitative basis for water-related hazardous materials analysis. IT load is confirmed at 69.3 MW (70% of 99 MW nameplate capacity). Demands are based on this confirmed IT load with PUE of 1.3 to 1.5. Final demands would be verified by the applicant's licensed civil engineer prior to Water Service Agreement issuance.

Table 4.9-2: The Inyokern CSD Water and Wastewater Metrics

Parameter	Planning-Level Value	Hazmat/Regulatory Relevance
Average Day Demand (ADD)	~40,430 GPD (28.1 GPM)	Total on-site water consumption basis; water treatment chemical loading estimate
Maximum Day Demand (MDD)	~60,645 GPD	Peak treatment chemical demand; containment sizing
Peak Hour Demand (PHD)	~101,075 GPD	Fire suppression backup; hydraulic design basis
Fire Flow Requirement	3,000 GPM @ 20 psi residual, 4 hr minimum	On-site fire water storage and pump sizing; fire suppression chemical inventory
Cooling Tower Makeup Water	~28,500 GPD (dominant demand)	Primary driver of treatment chemical consumption, blowdown volume, TDS loading
Potable / Domestic Sanitary	~1,900 GPD	Standard domestic wastewater to POTW
Irrigation / Landscaping	~500 GPD	Non-contact; minimal hazmat relevance
Average Dry Weather Flow (ADWF) to POTW	~6,670 GPD	Basis for SIU screening; industrial pretreatment evaluation
Peak Wet Weather Flow (PWWF)	~2.5 x ADWF (pipeline sizing)	Collection system capacity; not direct hazmat driver
Primary Discharge Source	Sanitary / domestic (restrooms, break rooms, locker facilities)	Conventional domestic wastewater; no pretreatment expected
Secondary Discharge Source	Cooling tower blowdown — pretreatment evaluation required	Contains TDS, corrosion inhibitors, biocides; SIU permit determination required
HVAC Condensate	subject to final engineering (see Section 3.2)	May discharge to storm only if AHJ approves 'clean condensate'

Source: Inyokern Community Services District Will Serve Letter, executed April 2, 2026. Demand estimates are based on confirmed IT load of 69.3 MW (70% of 99 MW nameplate) with PUE of 1.3–1.5. Final demands to be verified by applicant's licensed civil engineer and confirmed by District prior to Water Service Agreement issuance.

Table 4.9-3 Construction Phase Hazardous Materials Inventory

Material / Chemical	Quantity (Max On-Site)	Storage Type	RCRA / Title 22 Classification	Disposal Management Pathway
Conceptual; to be finalized per MM 4.9-1 and MM 4.9-3	Per MM 4.9-1	Per MM 4.9-1	Per MM 4.9-1	Per MM 4.9-1 and MM 4.9-3

Note: Detailed construction-phase hazardous materials quantities will be provided as a supplement per MM 4.9-1 and Section 3.2. Quantities and classifications are subject to change based on final contractor selections, equipment specifications, and construction phasing. Narrative descriptions of anticipated construction-phase hazardous materials are provided in Section 4.9.1.3.

Table 4.9-4 Operations Phase Hazardous Materials and Waste Stream Inventory

Material / Waste Stream	Generation Rate (Est.)	Hazardous Classification	Annual Estimate	Volume	Management Disposal Pathway
Conceptual; to be finalized per MM 4.9-1 and MM 4.9-3	Per MM 4.9-1	Per MM 4.9-1	Per MM 4.9-1		Per MM 4.9-1 and MM 4.9-3

Note: Detailed operations-phase hazardous materials and waste stream quantities will be provided as a supplement per MM 4.9-1 and Section 3.2. Final engineered waste stream quantities depend on generator count, cooling system configuration, battery chemistry selection, and transformer specifications. Planning-level waste stream estimates are provided in the Operations Phase narrative in Section 4.9.1.3.

Construction Phase — Hazardous Materials and Waste Streams

Construction is expected to begin April 2027 and continue for approximately 48 months (per the air quality analysis). The Project involves large-scale industrial construction including civil grading, structural concrete, mechanical/electrical installation, and commissioning activities on approximately 50 acres. Peak construction water demand is up to 25,000 GPD; total construction water demand is estimated at 9 to 11 million gallons. The following categories of hazardous materials are expected during construction:

- Diesel fuel and gasoline: for heavy construction equipment (dozers, graders, excavators, cranes, concrete trucks). Typical construction fleet may maintain 1,000 to 5,000 gallons of diesel on-site at any time in temporary ASTs or day tanks; exact quantities depend on construction phasing and contractor practice.
- Lubricating oils, hydraulic fluids, gear oils, and greases: for equipment maintenance. Typical large construction Project generates 50 to 200 gallons per month of used oil during active earthwork and structural phases.
- Solvent-based paints, coatings, adhesives, sealants, and curing compounds: for building construction. Quantities vary by subcontractor; typically managed in 5-gallon containers or drums.
- Epoxy systems, primers, and surface preparation chemicals: for structural steel and mechanical systems.
- Welding gases: acetylene, oxygen, argon cylinders for structural and mechanical welding throughout the construction period.

- Concrete washout materials: for a Project this size (238,000 sq. ft. gross building area), concrete washout volumes may reach several thousand gallons; designated washout areas with lined pits or portable containment are required under the SWPPP.
- Pre-charge and commissioning chemicals: refrigerant, glycol, and water treatment chemicals would be introduced during late-stage commissioning; these represent an operations-phase material but may first appear during the construction period.

Construction Waste Stream Estimates (CEC Appendix B)

CEC Appendix B requires estimated annual weight or volume for each waste stream and frequency of generation. The following are planning-level estimates for the construction phase based on Project scale and industry data. Final quantities depend on construction methods, phasing, and contractor practices.

Table 4.9-5: Construction Waste Stream Estimates

Waste Stream	Origin	Hazardous / Nonhazardous (Title 22)	Est. Annual Volume / Weight	Est. Generation Frequency	RCRA Code(s)
Diesel/gasoline-contaminated soil or debris	Equipment fueling spills, REC encounter	CA Hazardous (D001) if ignitable	Variable — 0 to several tons depending on spills	Episodic (spill-driven)	D001
Used engine oil	Heavy equipment maintenance	CA Hazardous — used oil (22 CCR §66279)	~50–200 gal/month during active earthwork	Monthly	CA 223
Used hydraulic fluid	Equipment maintenance	CA Hazardous — used oil	~20–80 gal/month	Monthly	CA 223
Oily rags and absorbents	Spill cleanup / maintenance	CA Hazardous (D001)	~100–400 lbs/month	Weekly/Monthly	D001, CA 222
Used fuel filters	Equipment maintenance	CA Hazardous (D001/D018)	~50–150 units/month	Monthly	D001
Solvent-based paint waste	Building painting / coating	CA Hazardous (F003/F005 or D001)	~50–200 gal/month during painting phase	Periodic (painting phases)	F003, F005, D001
Concrete washout residue	Civil and structural concrete	Potentially D002 (pH ≥12.5); test required	Several thousand gallons over construction	Ongoing during concrete phases	D002 if characteristic
Contaminated soil (REC encounter)	Phase I ESA RECs — excavation	Characterize per 22 CCR §66262.11	Unknown; could range from none to	Episodic	subject to site characterization (see Section 3.2)

Waste Stream	Origin	Hazardous / Nonhazardous (Title 22)	Est. Annual Volume / Weight	Est. Generation Frequency	RCRA Code(s)
			several hundred tons		
Empty hazardous material containers	Paint, solvent, adhesive, chemical drums	CA Hazardous if not triple-rinsed	~200–500 containers/year	Ongoing	D001/D002 if not rinsed
Valley Fever PPE / biohazard waste	Dust control, worker protection	Not RCRA hazardous; Cal/OSHA regulated	Small quantities	Ongoing during earthwork	N/A — Cal/OSHA managed

Note: All estimates are planning-level only for CEC Appendix B compliance purposes and will be finalized under applicable mitigation measures and permit requirements. Final quantities must be based on actual construction methods and contractor data. Monthly volumes vary by construction phase — earthwork, structural, mechanical, and commissioning phases each generate different waste profiles.

Construction Staging and Temporary Hazmat Storage

Construction hazardous materials would require on-site temporary storage consistent with California Fire Code Chapter 57 (flammable liquids), HMBP requirements, and SWPPP controls. Key staging requirements include:

- Designated fueling areas with secondary containment (double-wall day tanks or banded portable containment), spill kits, and fire extinguishers;
- Covered storage for paint, solvent, adhesive, and chemical containers — segregated by compatibility and protected from direct sun and rainfall;
- Satellite Accumulation Areas (SAAs) at major equipment maintenance points — maximum 55 gallons per SAA;
- Designated concrete washout areas with lined pits or portable systems; minimum 50 feet from storm drains;
- Hazardous waste accumulation area established once waste generation commences — labeled per 22 CCR §66262.34, inspected weekly, with 90-day maximum accumulation period if LQG status applies.

Construction Health and Safety Program Outline (CEC Appendix B)

CEC Appendix B requires a draft outline of the Construction Health and Safety Program (CHSP). The following represents the required program elements; the full CHSP document is a contractor-developed deliverable prepared before construction commences per Cal/OSHA Title 8 and CEC requirements.

Operations and Maintenance Phase — Hazardous Materials Inventory

Backup Power Fuel System

The Project would include 40 diesel-fueled 3.0 MW generators and 600,000 gallons of on-site fuel storage in six 100,000-gallon UL-2085 double-wall ASTs. At 69.3 MW critical IT load and PUE of 1.3–1.5, approximately 32 of the 40 generators would operate during an emergency event (providing N+8 redundancy). At full rated load, all 40 generators consume approximately 8,200 gallons per hour (approximately 205 gallons per hour per unit for the Cat 3516E at nameplate), yielding the stated approximately 73-hour runtime at 600,000 gallons. Fuel deliveries would be made by licensed petroleum haulers via US-395 and SR-178. At 9,000 gallons per tanker, the initial tank farm fill requires approximately 67 delivery trips. Annual generator testing (50 hours per year per engine per EKAPCD/AQ analysis assumptions) consumes approximately 350,000 to 410,000 gallons of diesel per year for the test program, requiring approximately 39 to 46 tanker resupply trips per year. Transfer operations must comply with SPCC requirements including secondary containment at transfer points sized for the maximum single tanker compartment. Generator Exhaust Aftertreatment (DEF / SCR)

The 40 generators would be equipped with SCR, DEF tanks, and DPF aftertreatment. DEF (aqueous urea, ~32.5% by weight) is not DOT-classified hazardous for transport purposes but requires on-site storage with freeze protection and UV shielding. Based on confirmed IT load and 50 hours per year of testing per generator (2,000 generator-hours per year total), annual test fuel consumption is estimated at approximately 350,000 to 410,000 gallons per year (at 175–205 gallons per hour per generator across the test program). At a typical DEF dosing rate of 2–5% of diesel fuel consumption, annual DEF consumption is estimated at approximately 3,600 to 20,500 gallons per year depending on dosing rate. On-site DEF storage and HMBP inventory sizing should be based on the final dosing rate confirmed with the SCR vendor.

Transformer Fluids

The Project includes both conventional oil-filled transformers (switchyard and large outdoor units, quantities subject to final engineering (see Section 3.2)) and less-flammable fluid-filled transformers (36 × 7.5 MVA units at ~750 gal each = ~27,000 gal; 12 × 3.75 MVA units at ~550 gal each = ~6,600 gal; total estimated ~33,600 gal less-flammable fluid). The specific less-flammable fluid type (FR3 natural ester, synthetic ester, or silicone-based) must be confirmed in final engineering. All new transformers must be documented as PCB-free per TSCA manufacturer certifications.

Battery Energy Storage / UPS Systems

The Project includes 54 UPS units and 216 battery racks with 15-minute autonomy. Battery chemistry is not confirmed. For a 99 MW hyperscale data center at this scale with 15-minute autonomy, the most probable technologies are lithium-ion (NMC or LFP chemistry) or valve-regulated lead-acid (VRLA). The Inyokern CSD has specifically identified fluoride, lithium, and PFAS contributions from BESS as a pretreatment concern, indicating that even at the utility service level, battery chemistry confirmation is time-sensitive. Regardless of final chemistry, all battery systems are subject to NFPA 855 (2026 edition), California Fire Code Chapter 12, and Kern County Fire ESS guidance.

Cooling Systems — Refrigerants and Glycol

The cooling system (hybrid dual chilled-water plant with air-cooled chillers, adiabatic tower assist, and CRAH units) uses R-454B and R-513A refrigerants (A2L mildly flammable HFO/HFC blends) and 20% propylene glycol in portions of the chilled-water circuit. Aggregate refrigerant charge must be calculated in final design for ASHRAE 15 compliance. Glycol concentrations, storage volumes, and makeup water volumes should be included in the HMBP.

Water Treatment and Process Chemicals

The cooling tower makeup demand of approximately 28,500 GPD (per Inyokern CSD Will Serve) implies the following ongoing chemical consumption at typical data center cooling tower treatment rates: scale inhibitors (phosphonate or polymer-based), corrosion inhibitors, biocides (sodium hypochlorite or isothiazolinone-based), and pH adjustment chemicals. RO/softening skids would require membrane cleaning agents (acid and caustic). Final chemistry must be developed in coordination with the Inyokern CSD pretreatment evaluation and submitted in the Wastewater Characterization Report.

Fire Suppression Systems

The planning-level fire protection concept includes VESDA plus clean-agent suppression (Novec 1230 or FM-200) in white space and UPS areas, pre-action systems in mechanical/electrical areas, and wet-pipe NFPA 13 systems in office/support areas. On-site fire water storage must meet the Inyokern CSD-confirmed fire flow requirement of 3,000 GPM at 20 psi residual for 4 hours minimum (720,000 gallons of fire flow demand, which must be addressed through on-site storage and/or system design). Clean-agent suppression media volumes would be determined in final fire protection design by room.

Operations Waste Stream Estimates (CEC Appendix B)

The following table provides planning-level waste stream estimates for operations and maintenance, consistent with CEC Appendix B requirements. Estimates are based on equipment counts, industry benchmarks, and the Project data record.

Table 4.9-6: Operations Waste Stream Estimates

Waste Stream	Source	Haz / Non-Haz (Title 22)	Est. Annual Volume	Est. Frequency	RCRA Code(s)
Used engine oil - generators	40 generators — oil change at ~500 hr intervals; assume 1–2 changes/generator/year	CA Hazardous — used oil (22 CCR §66279)	~2,000–4,000 gal/year (Cat 3516E crankcase ~50–60 gal; est. 1–2 changes/generator/year based on 500-hr oil change interval and annual test schedule of 50 hr/yr per generator)	Quarterly to semi-annual per unit	CA 223

Waste Stream	Source	Haz / Non-Haz (Title 22)	Est. Annual Volume	Est. Frequency	RCRA Code(s)
Used oil filters	40 generators — filter change with each oil change	CA Hazardous (D001)	~80–160 filters/year (2–4 per oil change × 40 units)	Quarterly to semi-annual	D001, CA 222
Used fuel filters	40 generators — periodic fuel filter replacement	CA Hazardous (D001/D018)	~200–400 filters/year	Quarterly	D001
Used hydraulic / gear oil	Mechanical systems, chiller maintenance	CA Hazardous — used oil	~100–500 gal/year	Periodic (maintenance-driven)	CA 223
Oily rags and absorbents	Generator/mechanical maintenance, spill cleanup	CA Hazardous (D001)	~500–2,000 lbs/year	Monthly	D001, CA 222
Spent engine coolant / antifreeze	Generator cooling systems	CA Hazardous (D001/D008)	~100–400 gal/year (5–10 gal/generator × 40, per 2-year cycle)	Every 2 years per unit	CA 224
UPS battery replacement (VRLA)	Battery end-of-life (~5–7 year cycle for VRLA)	CA Universal Waste — intact batteries for recycling; D002/D008 if not recycled	216 racks per replacement cycle (~5–7 yr)	Every 5–7 years	Universal Waste or D002/D008
UPS battery replacement (Li-ion)	Battery end-of-life (~8–10 year cycle for Li-ion)	CA Universal Waste — intact batteries for recycling	216 racks per replacement cycle (~8–10 yr)	Every 8–10 years	Universal Waste (2024 CA program)
Recovered refrigerant	Chiller / HVAC servicing	Not RCRA hazardous — CAA §608 regulated	subject to final chiller design (see Section 3.2)	As needed for servicing	CAA §608
Used transformer oil / ester fluid	Transformer fluid testing, changeout	CA Hazardous — used oil (22 CCR §66279)	periodic sampling ~50–100 gal/year; subject to final design	Annual sampling; changeout as needed	CA 223
Spent SCR catalyst	Generator aftertreatment — catalyst replacement	CA Hazardous (D011 vanadium — TCLP/STLC required)	~1–2 catalyst modules per generator per 5–7 yr cycle	Every 5–7 years	D011 (if characteristic)
Maintenance solvent waste	Parts cleaning, degreasing	CA Hazardous (F003/F005)	~50–200 gal/year depending on maintenance program	Monthly	F003, F005

Waste Stream	Source	Haz / Non-Haz (Title 22)	Est. Annual Volume	Est. Frequency	RCRA Code(s)
		— non-halogenated solvents)			
Water treatment chemical residuals	RO, softening, cooling tower maintenance	Characterize — may be D002 (acid/caustic cleaners)	~100–500 gal/year	Periodic (membrane cleaning cycles)	D002 possible
Cooling tower blowdown	Cooling tower operations	Not CA hazardous at typical concentration s; SIU screening required	~4,200–5,700 GPD est. (assuming 80–90% of 28,500 GPD makeup evaporates; blowdown ~15–20% remainder)	Continuous	Not hazardous — SIU/pretreatment evaluation required
RO reject / brine concentrate	RO/softening skids	Characterize — typically non-hazardous but high TDS	subject to final RO/softening design and water quality characterization (see Section 3.2)	Continuous	subject to site characterization (see Section 3.2)
HVAC condensate	Chiller / CRAH condensate	Typically non-hazardous (clean condensate); AHJ approval required for storm discharge	subject to final engineering (see Section 3.2)	Continuous during cooling season	Non-hazardous if clean

Note: Estimates are planning-level values derived from equipment counts, industry benchmarks, and Project data. Final waste generation quantities must be tracked and reported per RCRA/Title 22 generator requirements. Cooling tower blowdown volume estimate is derived from CSD Will Serve Letter makeup water figure (~28,500 GPD) with 80–90% evaporative loss assumption standard for cooling tower operations.

Operations Health and Safety Program Outline (CEC Appendix B)

CEC Appendix B requires a draft outline of the Operations Health and Safety Program (OHSP). The following represents the required program elements; the full OHSP is a facility-developed document prepared before operations commence.

OHSP Program Element Outline

Required elements per CEC Appendix B and applicable regulations include: (1) Hazard Communication Program (HazCom) per Cal/OSHA Title 8 §5194 — SDS binder and chemical inventory for all operational chemicals; (2) Hazardous Waste Management Plan — accumulation area management, manifest procedures, DTSC annual reporting per LQG requirements; (3) SPCC

Plan Implementation — oil-handling personnel training (annual), designated spill prevention coordinator, inspection schedules for all ASTs and oil-filled equipment; (4) Emergency Response Plan — facility-specific ERP coordinated with HMBP, SPCC, and Kern County Fire Station 83 pre-incident planning; chemical-specific response procedures for diesel spill, battery thermal event, refrigerant release, and transformer fluid release; (5) Confined Space Entry Program — Cal/OSHA Title 8 §5157 permit-required confined space procedures for 100,000-gallon AST maintenance access, electrical manholes, and mechanical pits; (6) Lockout/Tagout (LOTO) Program — Cal/OSHA Title 8 §3314 energy control procedures for generator and electrical maintenance; (7) Permissible Exposure Limits (PEL) Management — monitoring and control for diesel exhaust (ACGIH TLV for diesel particulate: 0.02 mg/m³), refrigerant exposures (ASHRAE 15 sensor requirements), and battery off-gas (hydrogen for VRLA; HF for Li-ion thermal events); (8) HAZWOPER Training — 40-hour initial training plus annual 8-hour refresher per Cal/OSHA Title 8 §5192 for employees who may respond to hazardous waste spills or emergency releases; (9) Cooling Tower Water Management Plan — Legionella control per ASHRAE 188 and California Health and Safety Code; and (10) SIU Compliance Program — if SIU permit is required by Inyokern CSD, including self-monitoring, reporting, and discharge notification procedures. Water, Wastewater, and Cooling Tower Hazardous Materials Interface

This section draws directly from the executed Inyokern CSD Will Serve Letter (April 2, 2026) to address the hazardous materials implications of the Project's water and sewer service, consistent with CEC Appendix B requirements for a complete fuel handling and waste stream discussion.

Cooling Tower Blowdown — Pretreatment and Chemical Hazards

The cooling tower makeup demand of approximately 28,500 GPD is the dominant water use driver. With evaporative loss of approximately 80–90%, blowdown represents approximately 5,700 GPD of concentrated process wastewater (at the CSD-required minimum 5.0 cycles of concentration: 28,500 GPD makeup ÷ 5 CoC ≈ 5,700 GPD blowdown; evaporation accounts for approximately 22,800 GPD). The Inyokern CSD has determined that blowdown may contain concentrations of conductivity, total dissolved solids, corrosion inhibitors, and biocides requiring pretreatment evaluation under 40 C.F.R. Part 403.

Cooling tower blowdown chemistry at data centers typically includes: concentrated mineral salts (calcium carbonate, magnesium, silica) at 5× or greater cycles of concentration (the Will Serve Letter specifies minimum 5.0 cycles); residual biocide concentrations (chlorine, bromine, or isothiazolinone-based compounds); corrosion inhibitor compounds (phosphonates, molybdates, or azoles); and pH adjustment chemical residuals. The executed Will Serve Letter (April 2, 2026) requires cooling towers to be equipped with conductivity controllers, side-stream filtration, and drift eliminators at minimum 5.0 cycles of concentration, which reduces blowdown volume but concentrates treatment chemistry in the blowdown stream.

BESS Fluoride, Lithium, and PFAS — Inyokern CSD Determination

The Inyokern CSD executed Will Serve Letter (April 2, 2026) specifically requires that battery energy storage systems (BESS) present on-site be assessed for potential fluoride, lithium, and PFAS contributions to the wastewater stream. This represents a regulatory finding — not just a

Project recommendation — that must be addressed in the Wastewater Characterization Report due 30 days before construction commencement.

The basis for this concern is as follows: lithium-ion batteries (if that is the confirmed chemistry) use fluorinated electrolyte solvents and PFAS-containing separator materials that can be released through normal operation, battery venting, or thermal events. Fluoride from LiFP6 electrolyte decomposition is a specific concern in wastewater from battery room drainage, fire suppression discharge, and HVAC condensate from battery spaces. PFAS from battery separator materials has been documented in effluent from battery manufacturing and large-scale storage facilities. Even lead-acid VRLA batteries can contribute antimony and arsenic compounds to drainage streams.

The Applicant must confirm battery chemistry before the Wastewater Characterization Report is due, obtain material safety data for the specific battery modules selected, evaluate potential contributions to floor drain and condensate systems, and present findings to the Inyokern CSD for SIU determination. If PFAS are confirmed in the waste stream, pretreatment may require activated carbon filtration or reverse osmosis, as PFAS are not removed by conventional biological POTW treatment.

RO Reject and Process Wastewater

RO reject (brine concentrate) from the RO/softening skids represents a separate high-TDS waste stream. Depending on recovery ratio and source water quality, RO reject may contain elevated concentrations of calcium, magnesium, silica, and trace metals. The Inyokern CSD must be consulted on whether RO reject is acceptable to the POTW or requires separate disposal (evaporation pond, hauled disposal, or deep well injection). This must be resolved before the facility Water Service Agreement is executed.

Water Conservation Conditions of Service

The Inyokern CSD executed Will Serve Letter (April 2, 2026) conditions service on California Title 24 water efficiency compliance, minimum 5.0 cycles of concentration for cooling towers with conductivity controllers and side-stream filtration, submission of a Water Efficiency Plan before building permits, and a water audit within 12 months of initial occupancy. These conditions are directly relevant to the hazardous materials study because they affect the character and volume of blowdown chemistry, treatment chemical consumption rates, and the water treatment program design.

Hydrology, Stormwater, and Spill Pathways

The Project site is in FEMA Zone A. The hydrology study states that regional floodwater from Little Dixie Wash does not reach the Project area and on-site maximum depth is generally less than 1 foot. The Project Site includes an on-site retention basin sized at 2.2 acre-feet (10-year, 5-day storm criterion) with a design objective to keep ponding below 18 inches draining within 7 days. There is no underground storm drain infrastructure on the main site; the site grades naturally toward the retention basin. This configuration is important to hazards analysis: the absence of a direct storm drain outlet reduces off-site spill migration potential, but the retention basin becomes the critical containment node and must be evaluated in the SPCC Plan for interaction with fuel yard secondary containment.

Table 4.9-7: Hydrology, Stormwater, and Spill Pathways

Spill Pathway Topic	Design / Control Basis	Regulatory Relevance
FEMA flood zone	Zone A — conservative drainage and flood-resistant design required	AST flood provisions under NFPA 30 and SPCC; flood-resistant fuel storage design
Retention basin	2.2 acre-feet	Captures on-site runoff; SPCC Plan must evaluate relationship to secondary containment for fuel yards
Drainage strategy	Surface grading to retention basin; no underground storm drain on main site	Limits direct off-site discharge pathways; fuel yards require dedicated bermed containment separate from stormwater basin
SWPPP construction /	Erosion controls, fueling controls, concrete washout BMPs, QSD/QSP required	NPDES CGP compliance; construction-period pollutant prevention
Operational fuel containment	Secondary containment per 40 CFR §112.8(c)(2); 100,000 gal minimum plus precipitation freeboard	PE-certified SPCC Plan required; berm design for six 100,000-gal ASTs
Tanker delivery transfer	Transfer area containment sized per SPCC for max single tanker compartment	~9,000-gallon containment at transfer point; spill kits and absorbent booms staged
Cooling tower blowdown	Dedicated discharge pathway to POTW via CSD connection; no storm drain discharge	CSD pretreatment evaluation; SIU permit if required; no direct stormwater discharge of blowdown
Transformer containment	NFPA 850 / SPCC sump or berm per PE determination	Aggregate ~33,600 gal less-flammable fluid requires containment; oil-filled units require separate analysis

Fire Protection and Emergency Response

The planning-level fire protection concept includes VESDA, clean-agent suppression in critical areas, pre-action systems in mechanical/electrical areas, wet-pipe systems in office/support areas, on-site fire-water storage, pumps, hydrants, and backflow prevention. The Inyokern CSD-confirmed fire flow requirement (3,000 GPM at 20 psi residual for 4 hours) establishes a total fire flow demand of 720,000 gallons, which must be addressed through on-site storage, system design, or a combination per final fire protection engineering and Kern County Fire Marshal approval.

Table 4.9-8: Fire Protection and Emergency Response

Emergency Response Topic	Summary
Primary site access	SR-178 / West Inyokern Road
Secondary emergency access	Brown Road
Nearest fire response station	Kern County Fire Station 83
Nearest emergency room	Ridgecrest Regional Hospital
Conservative receptor — school	Inyokern Elementary School ~0.8 miles SW
Conservative receptor — senior	Inyokern Senior Center ~0.8 miles SW

Emergency Response Topic	Summary
CUPA jurisdiction	Kern County Environmental Health Services Division
APCD jurisdiction	Eastern Kern Air Pollution Control District (EKAPCD)
Water / sewer utility	Inyokern Community Services District (CSD)
Fire flow requirement (CSD)	3,000 GPM @ 20 psi residual, 4 hr minimum (720,000 gal total fire demand)
Fire code authority	Kern County Fire Marshal
Pre-application meeting	Strongly recommended with Kern County Fire before permit submittal for facility this scale

Transportation and Hazardous Materials Logistics

The site is served primarily by US 395 and SR-178, with Brown Road as secondary/local access. Oversize/overweight deliveries are expected for generators, transformers, chillers, and UPS modules. Per CEC Appendix B, the following transport summary addresses, types, estimated quantities, estimated number of trips, routes, and transportation hazards.

Table 4.9-9: Transportation and Hazardous Materials Logistics

Material Transport	Est. Quantity per Delivery	Est. Annual Trips (Operations)	Primary Route	Transport Hazard Notes
Diesel fuel — initial tank farm fill	~9,000 gal/tanker	~67 trips (one-time fill; 600,000 gal ÷ 9,000 gal/tanker)	US-395 to SR-178 to site	DOT Class 3 flammable liquid; licensed petroleum hauler; SPCC transfer controls
Diesel fuel — ongoing resupply	~9,000 gal/tanker	~39–46 trips/year for annual test program (50 hr/yr × 40 generators × 175–205 gph ÷ 9,000 gal/tanker), plus unscheduled emergency resupply deliveries	US-395 to SR-178 to site	Same as above; frequency depends on emergency events
DEF (urea) — generator aftertreatment	~330 gal/tote or bulk delivery	~4–12 trips/year	US-395 to SR-178 to site	Not DOT hazmat for transport; standard liquid freight; UV/freeze storage requirements
Transformer / dielectric fluid — periodic service	~1,000–5,000 gal per service event	~2–4 trips/year (service events)	US-395 to SR-178 to site	Used oil transport; licensed hazardous waste transporter for used fluid return
Water treatment chemicals (sodium	55-gal drums or 275-gal totes	~12–24 trips/year combined	US-395 to SR-178 to site	DOT hazmat as applicable; hypochlorite: Oxidizer (Class

Material Transport /	Est. Quantity per Delivery	Est. Annual Trips (Operations)	Primary Route	Transport Hazard Notes
hypochlorite, acids)				5.1); sulfuric acid: Corrosive (Class 8)
Hazardous waste — used oil	55-gal drums or vacuum truck	~4–12 trips/year	Site to licensed used oil collector / TSDF	Licensed California hazardous waste transporter; manifest required
Hazardous waste — misc. maintenance	55-gal drums	~4–8 trips/year	Site to licensed TSDF	Licensed transporter; manifest; DTSC copy within 30 days
Battery replacement modules	Heavy freight	Every 5–10 years (full replacement cycle)	US-395 to SR-178 to site	Lithium batteries: UN3480/UN3481 (DOT); VRLA: UN2800; licensed battery recycler for return
Oversize equipment (generators, transformers, chillers)	One-time construction deliveries	~100–200 trips during construction	SR-178 (primary); possibly SR-14 / US-395	Oversize/overweight permits required; route survey; Caltrans notification

Note: Trip estimates are based on confirmed IT load of 69.3 MW and Cat 3516E fuel consumption rate of approximately 175–205 gallons per hour at rated load. Annual generator testing at 50 hours per year per engine (2,000 generator-hours per year total per AQ analysis assumptions) consumes approximately 350,000 to 410,000 gallons of diesel per year for testing, requiring approximately 39 to 46 tanker trips per year for test fuel resupply alone. Generators are tested sequentially, not simultaneously. Emergency events and unscheduled runs drive additional unplanned deliveries. At full emergency load (all 40 generators running), the 600,000-gallon tank farm provides approximately 73 hours of continuous runtime.

Air Quality / Health Risk Interface

The air quality analysis evaluates hazardous air pollutant exposure from generator exhaust, ammonia slip (SCR), cooling tower drift, and tank fugitives using the CARB HARP methodology consistent with CEC Appendix B and OEHHA guidelines. It concludes that cancer risk, chronic hazard index, and acute hazard index remain below applicable significance thresholds. The AQ/GHG study confirms construction beginning in 2027 over approximately 48 months, Valley Fever training/PPE measures, and no naturally occurring asbestos (NOA) at the site.

The generator test assumptions (50 hours/year testing; 150 hours/year emergency operation per engine) establish an operational envelope that must be maintained through EKAPCD permit conditions. Cooling tower drift from the adiabatic tower assist component is relevant to both the health risk analysis and the Legionella management program required under ASHRAE 188 and California Health and Safety Code; the executed Will Serve Letter (April 2, 2026) requirement for drift eliminators supports this requirement.

4.9.2 Regulatory Setting

Federal

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) was established in 1970 to consolidate in one agency a variety of federal research, monitoring, standard-setting, and enforcement activities to ensure environmental protection. The EPA's mission is to protect human health and to safeguard the natural environment—air, water, and land—upon which life depends. Where national standards are not met, the EPA can issue sanctions and take other steps to assist the states and tribes in reaching the desired levels of environmental quality.

Federal Toxic Substances Control Act / Resource Conservation and Recovery Act / Hazardous and Solid Waste Act (RCRA)

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the EPA to regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the “cradle to grave” system of regulating hazardous wastes.

Comprehensive Environmental Response, Compensation, and Liability Act / Superfund Amendments and Reauthorization Act (CERCLA)

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as “Superfund,” were enacted by Congress on December 11, 1980. This law (42 United States Code [USC] 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enables the revision of the National Contingency Plan (NCP). The NCP (CFR Title 40, Part 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Clean Water Act / Spill Prevention, Control, and Countermeasure Rule

The Clean Water Act (CWA) (33 USC 1251 et seq., formerly known as the Federal Water Pollution Control Act of 1972) was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of waters of the United States. As part of the CWA, the EPA oversees and enforces the Oil Pollution Prevention regulation contained in 40 CFR 112, which is often referred to as the “SPCC rule” because the regulations describe the requirements for facilities to prepare, amend, and implement spill prevention, control, and countermeasure (SPCC) plans. A facility is subject to SPCC regulations if a single oil storage tank has a capacity greater than 660 gallons, or the total aboveground oil storage capacity exceeds 1,320 gallons, or the underground oil storage capacity exceeds 42,000

gallons, and if, due to its location, the facility could reasonably be expected to discharge oil into or upon the “Navigable Waters” of the United States.

Federal Aviation Administration Part 77

The Federal Aviation Administration (FAA) regulates aviation at regional, public, and private airports. The FAA regulates objects affecting navigable airspace. According to 49 CFR Part 77.9, any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA of:

- Any construction or alteration exceeding 200 feet above ground level;
- Any construction or alteration:
- Within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway where the longest airport runway exceeds 3,200 feet in actual length;
- Within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway where the longest airport runway is less than 3,200 feet in actual length; and
- Within 5,000 feet of a public use heliport which exceeds a 25:1 surface;
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed the above standards;
- When requested by the FAA; and
- Any construction or alteration located on a public use airport or heliport regardless of height or location.

The U.S. and California DOT require the proponent to submit FAA Form 7460-1 if proposed structures exceed applicable Part 77 thresholds; based on the current design (all structures less than 35 feet AGL), no FAA Form 7460-1 filing is required, Notice of Proposed Construction or Alteration. According to 14 CFR Part 77.5, notification allows the FAA to identify potential aeronautical hazards in advance, thus preventing or minimizing any adverse impacts on the safe and efficient use of navigable airspace. Any structure that would constitute a hazard to air navigation, as defined in 14 CFR Part 77, requires issuance of a permit from the California Department of Transportation’s Aeronautics Program. The permit is not required if the FAA aeronautical study determines that the structure has no impact on air navigation. Failure to comply with the provisions of Federal Aviation Regulation Part 77 is subject to civil penalty under Section 902 of the Federal Aviation Act of 1958, as amended, and pursuant to 49 USC Section 46301(a).

The Federal Aviation Administration Solar Policy

The Solar Policy sets forth the standards for measuring ocular impact, the required analysis tool, and the obligations of the Airport Sponsor when a solar energy system is proposed for development on a federally-obligated airport. Although the Policy only applies to projects located on federally-obligated airports, the FAA urges proponents of off-airport solar-installations to voluntarily implement its provisions. These provisions include preparation of a glare study to ensure impacts of a solar Project would not affect air traffic via glare (IWWAD, 2017).

Other Regulations

Other federal regulations overseen by the EPA relevant to hazardous materials and environmental contamination include 40 CFR Parts 100 to 149, Water Programs; 40 CFR Parts 239 to 259, Solid Wastes; and 40 CFR Parts 260 to 279, Hazardous Waste. These regulations designate hazardous substances under the Federal Water Pollution Control Act; determine the reportable quantity for each substance that is designated as hazardous; and establish quantities of designated substances equal to or greater than the reportable quantities that may be discharged into waters of the United States.

SPCC Plan — 40 CFR Part 112

The Project's 600,000-gallon diesel AST inventory exceeds the 1,320-gallon SPCC aboveground threshold by approximately 455-fold, clearly triggering the requirement for a PE-certified SPCC Plan prior to oil storage operations. The plan must address: facility diagram; secondary containment sized to the largest single tank (100,000 gallons minimum) plus precipitation freeboard; transfer area containment for tanker deliveries; discharge prevention procedures; spill response countermeasures; personnel training; and an emergency contact list including the National Response Center (1-800-424-8802). Oil-filled transformers and generator lube systems are included in the aggregate oil inventory analysis.

Under 40 CFR §112.8(c)(2), containment must hold the full capacity of the largest single container (100,000 gallons) plus precipitation freeboard. Transformer fluid yards may require separate containment or a common PE-engineered collection system. Tanker delivery transfer areas must be sized for the maximum single tanker compartment capacity. All must be PE-certified.

EPCRA Tier II — 42 U.S.C. §11001 et seq.

With ~4.3 million pounds of diesel fuel on-site, annual EPCRA Tier II reporting to CalOES (SERC), the Indian Wells Valley LEPC, and the local fire department is clearly triggered. Reports are due by March 1 each year once operations commence. Sodium hypochlorite and sulfuric acid (if used in water treatment) may also require Tier II reporting depending on final storage quantities.

RICE NESHAP / NSPS IIII — 40 CFR Parts 63 / 60

All 40 diesel generators are subject to 40 CFR Part 60 Subpart IIII (NSPS for CI stationary engines) and 40 CFR Part 63 Subpart ZZZZ (RICE NESHAP). Emergency use is not hour-limited; non-emergency testing and demand response use is limited to 100 hours per year under the emergency engine classification. As of May 2025, EPA issued clarifying guidance on non-emergency generator operation for demand response programs. Annual usage hours must be tracked and reported. Operational protocols must be designed to maintain emergency engine classification.

CERCLA Release Reporting — 40 CFR Part 302

Releases of CERCLA-listed hazardous substances above their reportable quantity (RQ) within a 24-hour period require immediate notification to the NRC (1-800-424-8802). Diesel fuel benefits from the petroleum exclusion; however, constituent releases (benzene RQ = 10 lbs; naphthalene RQ = 100 lbs) may trigger reporting. Lead-acid battery acid (sulfuric acid RQ = 1,000 lbs), vanadium from SCR catalyst, and PCBs (if any, RQ = 1 lb) are the other primary CERCLA-

relevant substances at this facility. The three Phase I ESA RECs create potential CERCLA Sec. 107 strict liability and are addressed in Section 4.9.4.

Occupational Safety and Health Administration (OSHA)

The Occupational Safety and Health Administration's (OSHA's) mission is to ensure the safety and health of U.S. workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. The OSHA staff establishes and enforces protective standards and reaches out to employers and employees through technical assistance and consultation programs. OSHA standards are listed in 29 CFR 1910, which include preparation of Health and Safety Plans (HASPs). HASPs identify potential hazards associated with a proposed land use and may provide appropriate mitigation measures as required. 29 CFR Section 1910.120(e) requires all employees working on site exposed to hazardous substances, health hazards, or safety hazards and their supervisors and management responsible for the site to receive training meeting the requirements of this paragraph before they are permitted to engage in hazardous waste operations that could expose them to hazardous substances, safety, or health hazards. These employees shall receive any necessary review training.

National Weather Service

Under extreme fire weather conditions, the National Weather Service (NWS) issues Red Flag Warnings for all affected areas. A Red Flag Warning means that any ignition could result in a large-scale damaging wildfire. The Project site is located in the NWS Hanford region. Red Flag Warning criteria are as follows:

- Relative humidity 15 percent or less with either sustained winds of 25 miles per hour (mph) or greater or frequent gusts of 35 mph or greater (for duration of 6 hours or more);
- Relative humidity 10 percent or less with 15 mph sustained winds or greater or frequent gusts of 25 mph (for duration of 6 hours or more); and
- Relative humidity of 15 percent or less with 25 mph sustained winds (for duration of 8 hours or more).

State

California Public Utilities Commission General Order 95: Rules for Overhead Electric Line Construction

General Order 95 (GO 95) is the key standard governing the design, construction, operation, and maintenance of overhead electric lines within the State of California. It was adopted in 1941 and updated most recently in 2012. GO 95 includes safety standards for overhead electric lines, including minimum distances for conductor spacing, minimum conductor ground clearance, and standards for calculating maximum sag, electric line inspection requirements, and vegetation clearance requirements. The latter, governed by Rule 35, and inspection requirements, governed by Rule 31.2, are summarized below:

- **Rule 35 - Tree Trimming:** defines minimum vegetation clearances around power lines. Rule 35 guidelines require 10-foot radial clearances for any conductor of a line operating

at 110,000 volts or more, but at less than 300,000 volts. This requirement would apply to the proposed 230 kV lines.

- **Rule 31.2 - Inspection of Lines:** requires that lines be inspected frequently and thoroughly for the purpose of ensuring that they are in good condition, and that lines temporarily out of service be inspected and maintained in such condition so as not to create a hazard.

California Electromagnetic Field Consensus Group

On January 15, 1991, the CPUC initiated an investigation to consider its role in mitigating the health effects, if any, of electric and magnetic fields from utility facilities and power lines. A working group of interested parties, the California EMF Consensus Group, was created by the CPUC to advise it on this issue. The California EMF Consensus Group's fact-finding process was open to the public, and its report incorporated public concerns. Its recommendations were filed with the CPUC in March 1992. Based on the work of the California EMF Consensus Group, written testimony, and evidentiary hearings, CPUC's decision (93-11-013) was issued on November 2, 1993, to address public concern about possible EMF health effects from electric utility facilities. The conclusions and findings included the following:

"We find that the body of scientific evidence continues to evolve. However, it is recognized that public concern and scientific uncertainty remain regarding the potential health effects of EMF exposure. We do not find it appropriate to adopt any specific numerical standard in association with EMF until we have a firm scientific basis for adopting any particular value."

This continues to be the stance of the CPUC regarding standards for EMF exposure. Currently, the State has not adopted any specific limits or regulations regarding EMF levels from electric power facilities.

Power Line Hazard Reduction

Public Resources Code (PRC) Section 4292 requires a 10-foot clearance around any tree branches or ground vegetation at the base of power poles carrying more than 110 kV. The firebreak clearances required by PRC Section 4292 are applicable within an imaginary cylindrical space surrounding each pole or tower on which a switch, fuse, transformer, or lightning arrester is attached and surrounding each dead-end or corner pole, unless such pole or tower is exempt from minimum clearance requirements by provisions of PRC Section 4296. Project structures would be exempt primarily because of their design specifications.

PRC Section 4293 - Power Line Clearance Requirement

PRC Section 4293 provides guidelines for line clearance, including a minimum of 10 feet of vegetation clearance around any conductor operating at 110 kV or higher.

14 CCR 1254 - Minimum Firebreak Clearance Provisions

With respect to minimum clearance requirements, 14 CCR 1254 presents guidelines pertaining to non-exempt utility poles. The Project structures would be exempt from the clearance requirements, with the exception of cable poles and dead-end structures.

The firebreak clearances required by 14 CCR 1254 are applicable within an imaginary cylindrical space surrounding each pole or tower on which a switch, fuse, transformer, or lightning arrester is attached and surrounding each dead-end or corner pole, unless such pole or tower is exempt from the minimum clearance requirements by the provisions of 14 CCR 1255 or PRC Section 4296. The radius of the cylindroid is 10 feet, which is measured horizontally from the outer circumference of the specified pole or tower, with the height equal to the distance from the intersection of the imaginary vertical exterior surface of the cylindroid to an intersection with a horizontal plane passing through the highest point at which a conductor is attached to such pole or tower. Flammable vegetation and materials located wholly or partially within the firebreak space would be treated as follows:

- At ground level: Remove flammable materials, including ground litter, duff, and dead or desiccated vegetation that would propagate fire.
- From 0 to 8 feet above ground level: Remove flammable trash, debris, or other materials, grass, and herbaceous and brush vegetation. Remove all limbs and foliage of living trees up to a height of 8 feet.
- From 8 feet to the horizontal plane of highest point of the conductor attachment: Remove dead, diseased, or dying limbs and foliage from living sound trees and any dead, diseased, or dying trees in their entirety.

Hazardous Materials Release Response Plan and Inventory Act of 1985

The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Hazardous materials are defined as unsafe raw or unused materials that are part of a process or manufacturing step. They are not considered hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste. A Hazardous Materials Business Plan (HMBP) must be submitted to the local Certified Unified Program Agency (CUPA) which is the Kern County Public Health Services Department/Environmental Health Division, if the facility handles, uses or stores a hazardous material or mixture containing a hazardous material that has a quantity equal to or greater than 55 gallons of liquid, 500 pounds of a solid substance, or 200 cubic feet of compressed gas, a hazardous compressed gas in any amount, or hazardous waste in any amount. A HMBP must include the following:

- Inventory of hazardous materials at a facility;
- Emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material; and
- Training for all new employees and annual training for all employees in safety procedures in the event of a release or threatened release of a hazardous material.

Hazardous Waste Control Act

The Hazardous Waste Control Act created the State Hazardous Waste Management Program, which is similar to but more stringent than the federal RCRA program. The act is implemented by regulations contained in Title 26 CCR, which describes the following required aspects for the proper management of hazardous waste:

- Identification and classification
- Generation and transportation
- Design and permitting of recycling, treatment, storage, and disposal facilities
- Treatment standards
- Operation of facilities and staff training
- Closure of facilities and liability requirements

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with the California Department of Toxic Substances and Control (DTSC).

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

Senate Bill 1082 (1993) created the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), which requires the administrative consolidation of six hazardous materials and waste programs (Program Elements) under one agency, a Certified Unified Program Agency (CUPA). The Program Elements consolidated under the Unified Program are as follows:

- Hazardous Waste Generator and Onsite Hazardous Waste Treatment Programs (i.e., Tiered Permitting)
- Aboveground Petroleum Storage Tank Program
- Hazardous Materials Release Response Plans and Inventory Program (i.e., Hazardous Materials Disclosure or “Community-Right-to-Know”)
- California Accidental Release Prevention Program (Cal ARP)
- Underground Storage Tank (UST) Program
- Uniform Fire Code Plans and Inventory Requirements

The CUPA in Kern County is the Environmental Health Division of the Kern County Public Health Services Department.

California Code of Regulations – Hazardous Substances & “Acutely hazardous materials and wastes”

Under CCR Title 22, the term “hazardous substance” refers to both hazardous materials and hazardous wastes. Both of these are classified according to four properties: (1) toxicity, (2) ignitability, (3) corrosiveness, and (4) reactivity (22 CCR 11, Article 3). A hazardous material is defined as a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed (22 CCR 66260.10). CCR Title 8 (Chapter 3.2, Article 5, Section 339) includes a list of identified hazardous substances. Hazardous materials in various forms can cause death; serious injury; long-lasting health effects;

and damage to buildings, homes, and other property (DHS, 2016).

“Acutely hazardous materials and wastes” in California are strictly regulated under Cal/OSHA (8 CCR § 5189) and the DTSC (22 CCR), targeting substances that can cause fatal or serious injuries, such as P-listed wastes or those with high toxicity. Acutely hazardous wastes are those that pose severe, immediate threats to human health or the environment (e.g., P-listed wastes). In California, these are identified by specific toxicological criteria (e.g., acute oral toxicity LD50 $\leq$ 50 mg/kg, dermal toxicity $\leq$ 43 mg/kg). Strict management requirements include: Storage Limits: A maximum of 1 quart of extremely/acutely hazardous waste can be accumulated at a satellite area; Empty Containers: Containers are only "empty" if triple-rinsed with a solvent, or treated with a verified equivalent method; Per Title 8, Containers must be compatible with the substance and protected from damage. Specific, stricter requirements apply for acutely hazardous materials (e.g., storage, inspection, and handling); Management: Handled at permitted facilities, with strict 90/180-day accumulation timelines; Reporting: Acute spills must be immediately reported to the California Emergency Management Agency.

Generators of these wastes are regulated under California Code of Regulations (CCR) Title 22. This includes specific rules for hazardous waste generators. Employees handling these materials must receive specific training on identifying, packaging, and managing the risks. Commonly Recognized Acutely Hazardous Substances include fuming sulfuric acid, hydrofluoric acid, nitrous oxide, chlorine, and various compressed or liquefied toxic gases. For acutely toxic hazardous materials and, the Department of Toxic Substances Control (DTSC) sets waste management standards. Cal/OSHA Defines worker safety regulations (Title 8, Section 5189, Appendix A). A Certified Unified Program Agency (CUPA) are local agencies responsible for enforcing hazardous material management plans.

California Government Code Section 65962.5 (Cortese List Statute)

The statute requires state and local agencies to identify and list sites with hazardous waste releases. Developers must consult these lists and submit a signed statement confirming if their project site is listed before a local agency can deem a development application complete. The purpose of the statute is to inform local agencies and the public about potential hazardous waste contamination at proposed development sites, ensuring compliance with the California Environmental Quality Act (CEQA). The list includes hazardous waste facilities, sites with known migration of hazardous waste, and sites with active cease and desist or cleanup orders. Responsible Agencies include the California Environmental Protection Agency (CalEPA) which compiles the information, drawing from the Department of Toxic Substances Control (DTSC), the State Water Resources Control Board, and local enforcement agencies. The list includes hazardous waste facilities, sites with known migration of hazardous waste, and sites with active cease and desist or cleanup orders. Developers must check the "Hazardous Waste and Substances Sites List" and disclose the findings in their application.

California Environmental Protection Agency

The California Environmental Protection Agency (Cal/EPA) was created in 1991 and unified California's environmental authority in a single cabinet-level agency and brought the California Air Resources Board (CARB), State Water Resource Control Board (SWRCB), Regional Water Quality Control Board (RWQCB), CalRecycle, DTSC, Office of Environmental Health Hazard

Assessment (OEHHA), and Department of Pesticide Regulation (DPR) under one agency. These agencies were placed within the Cal/EPA “umbrella” for the protection of human health and the environment and to ensure the coordinated deployment of State resources. Their mission is to restore, protect, and enhance the environment and to ensure public health, environmental quality, and economic vitality.

Department of Toxic Substances and Controls

DTSC, a department of Cal/EPA, is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the Federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. USC 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks or a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites with a known migration of hazardous waste/material.

DTSC — California Hazardous Waste Generator Requirements: California's hazardous waste program (22 CCR Division 4.5) exceeds federal RCRA in several respects relevant to this Project: used oil is California hazardous waste regardless of federal classification; STLC/TTLC thresholds may classify wastes as hazardous that pass federal TCLP; California manifests require both RCRA codes and California state codes; and copies of all manifests must be submitted to DTSC within 30 days of each shipment.

California Office of Emergency Services

In order to protect public health and safety, and the environment, the California Office of Emergency Services (OES) is responsible for establishing and managing statewide standards for business and area plans relating to the handling and release, or threatened release, of hazardous materials. The OES requires that basic information on hazardous materials handled, used, stored, or disposed of (including location, type, quantity, and health risks) be available to firefighters, public safety officers, and regulatory agencies. Typically, this information should be included in business plans in order to prevent or mitigate damage to the health and safety of persons and the environment from the release or threatened release of these materials into the workplace and environment. These regulations are covered under Chapter 6.95 of the California Health and Safety Code, Article 1, Hazardous Materials Release Response and Inventory Program (Sections 25500 to 25520), and Article 2, Hazardous Materials Management (Sections 25531 to 25543.3).

Title 19 CCR, Public Safety, Division 2, Office of Emergency Services, Chapter 4, Hazardous Material Release Reporting, Inventory, and Response Plans, Article 4, Minimum Standards for Business Plans, establishes minimum statewide standards for hazardous materials business plans. These plans must include the following: (1) a hazardous material inventory in accordance with Sections 2729.2 to 2729.7, (2) emergency response plans and procedures in accordance with Section 2731, and (3) training program information in accordance with Section 2732. Business plans contain basic information on the location, type, quantity, and health risks of

hazardous materials stored, used, or disposed of in the State. Each business will prepare a hazardous materials business plan if that business uses, handles, or stores a hazardous material or an extremely hazardous material in quantities greater than or equal to the following:

- 500 pounds of a solid substance;
- 55 gallons of a liquid;
- 200 cubic feet of compressed gas;
- A hazardous compressed gas in any amount; or
- Hazardous waste in any quantity.

California Occupational Safety and Health Administration

California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR 337–340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

California Highway Patrol

A valid Hazardous Materials Transportation License, issued by the CHP, is required by the laws and regulations of State of California Vehicle Code Section 3200.5 for transportation of either:

- Hazardous materials shipments for which the display of placards is required by State regulations; or
- Hazardous materials shipments of more than 500 pounds, which would require placards if shipping greater amounts in the same manner.

Additional requirements on the transportation of explosives, inhalation hazards, and radioactive materials are enforced by the CHP under the authority of the State Vehicle Code. Transportation of explosives generally requires consistency with additional rules and regulations for routing, safe stopping distances, and inspection stops (14 CCR 6 [1] [1150–1152.10]). Inhalation hazards face similar, more restrictive rules and regulations (13 CCR 6 [2.5] [1157–1157.8]). Transportation of radioactive materials is restricted to specific safe routes.

CalARP / RM – Cal. H&S Code 25531; CCR Chapter 4.5

Screening is required for all process chemicals against CalARP Tables 1–3 threshold quantities. Current Project description does not identify any CalARP-listed substance above its TQ, but final confirmation is required when water treatment chemistry (sulfuric acid TQ = 1,000 lbs; ammonia TQ = 500 lbs if used) is specified. A documented screening analysis — even a negative finding — must be submitted to the Kern County CUPA prior to operations.

HMBP / CERS – Cal. H&S Code 25500

HMBP filing with the Kern County Environmental Health Services Division (CUPA) is clearly triggered by diesel (600,000 gal), transformer fluids (~33,600 gal estimated), propylene glycol,

and treatment chemicals. Filing must be completed through CERS before handling any hazardous material on-site. HMBP control area analysis per the California Fire Code is required as part of building permit applications. Final HMBP inventory would include all materials listed in Section 7.0 that meet or exceed threshold quantities.

EKAPCD – Generator Permitting

The Project Site is in the Eastern Kern Air Pollution Control District (EKAPCD) — not EKAPCD. Each of the 40 generators requires individual EKAPCD Authority to Construct (ATC) and Permit to Operate (PTO). At ~4,000–4,500 BHP per unit, the facility will likely qualify as a major stationary source. Air quality analysis assumptions (50 hours/year testing; 150 hours/year emergency operation per engine) must be consistent with EKAPCD permit conditions and federal RICE NESHAP/NSPS IIII limits. BACT determination (likely Tier 4 emissions standards with SCR/DPF) must be confirmed with EKAPCD in the ATC process.

Inyokern CSD - Industrial Pretreatment Program (40 C.F.R. Part 403)

The Inyokern CSD POTW is subject to federal pretreatment standards. Per the Will Serve Letter (executed April 2, 2026), the Applicant must submit a Wastewater Characterization Report covering cooling tower blowdown and BESS effluent contributions (fluoride, lithium, PFAS) no later than 30 days prior to construction commencement. The District will determine whether a Significant Industrial User (SIU) permit is required. If SIU status is determined, the Applicant would be subject to categorical or local pretreatment limits, self-monitoring, and annual reporting. HVAC condensate discharge to storm drain requires AHJ approval as 'clean condensate'; discharge to sewer requires CSD approval. RO reject streams require separate characterization and permitted disposal pathway.

RCRA / DTSC / Title 22

The Project is expected to qualify as a Large Quantity Generator (LQG) of California hazardous waste. Key obligations include: EPA and DTSC Hazardous Waste Generator ID numbers before first generation; designated accumulation area with weekly inspections; 90-day accumulation limit; written contingency plan provided to Kern County Fire Station 83 and Kern County Sheriff; annual DTSC hazardous waste generation report; and manifest submission to DTSC within 30 days of each shipment. Used oil from 40 generators constitutes a California hazardous waste (22 CCR §66279) and is the primary driver of LQG classification. Detailed RCRA/CERCLA/DTSC material cross-walk is provided in Section 4.9.2.

Local

Kern County General Plan

The policies, goals, and implementation measures in the Kern County General Plan for hazards and hazardous materials applicable to the Project are provided below. The Kern County General Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the Project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Chapter 1: Land Use, Open Space and Conservation; Physical and Environmental Constraints

- Policy 1 Kern County will ensure that new developments will not be sited on land that is physically or environmentally constrained (Map Code 2.1 [Seismic Hazard], Map Code 2.2 [Landslide], Map Code 2.3 [Shallow Groundwater], Map Code 2.5 [Flood Hazard], Map Codes 2.6–2.9 and Map Code 2.10 [Nearby Waste Facility], and Map Code 2.11 [Burn Dump Hazard]) to support such development unless appropriate studies establish that such development would not result in an unmitigated significant impact.

Chapter 2: Circulation Element; Transportation of Hazardous Materials

- Goal 1 Reduce risk to public health from transportation of hazardous materials.
- Policy 1 The commercial transportation of hazardous material, identification and designation of appropriate shipping routes would be in conformance with the adopted Kern County and Incorporated Cities Hazardous Waste Management Plan.
- Measure A Roads and highways utilized for commercial shipping of hazardous waste destined for disposal will be designated as such pursuant to Vehicle Code Sections 31303 et seq. Permit applications shall identify commercial shipping routes they propose to utilize for particular waste streams.

Chapter 4: Safety Element; 4.2: General Policies and Implementation Measures, Which Apply to More Than One Safety Constraint

- Measure F The adopted multi-jurisdictional Kern County, California Multi-Hazard Mitigation Plan, as approved by the Federal Emergency Management Agency (FEMA), shall be used as a source document for preparation of environmental documents pursuant to the California Environmental Quality Act (CEQA), evaluation of Project proposals, formulation of potential mitigation, and identification of specific actions that could, if implemented, mitigate impacts from future disasters and other threats to public safety.

4.9 Hazardous Materials

- Measure A Facilities used to manufacture, store, and use of hazardous materials shall comply with the Uniform Fire Code, with requirements for siting or design to prevent onsite hazards from affecting surrounding communities in the event of inundation.

Chapter 5: Energy Element; 5.4.5: Solar Energy Development

- Policy 3 The County should permit solar energy development in the desert and valley planning regions that does not pose significant environmental or public health and

safety hazards.

Kern County General Plan Safety Element — Hazardous Materials Policies

- Policy 1 The proposed siting or expansion of hazardous waste facilities would be in conformance with the adopted Kern County and Incorporated Cities Hazardous Waste Management Plan.
- Policy 2 Innovative technologies to manage hazardous waste streams generated in Kern County would be encouraged.
- Measure A Facilities used to manufacture, store, and use hazardous materials shall comply with the Uniform Fire Code, with requirements for siting or design to prevent on-site hazards from affecting surrounding communities in the event of inundation.
- Measure B The proposed siting or expansion of hazardous waste facilities would be in conformance with the adopted Kern County and Incorporated Cities Hazardous Waste Management Plan.

Kern County General Plan Safety Element — Fire Prevention Policies

- Policy 1 Require discretionary projects to assess impacts on emergency services and facilities.
- Policy 4 Ensure that new development of properties has sufficient access for emergency vehicles and for the evacuation of residents.
- Policy 6 All discretionary projects shall comply with the adopted Fire Code and the requirements of the Fire Department.
- Measure A Require that all development comply with the requirements of the Kern County Fire Department or other appropriate agency regarding access, fire flows, and fire protection facilities.

Inyokern Specific Plan

The entire Project site is subject to the provisions of the Inyokern Specific Plan, which contains goals, policies, and standards that are compatible with those of the Kern County General Plan but are unique to the specific needs of the of the Inyokern Area. The Land Use, Open Space, and Conservation Element of the Inyokern Specific Plan has the purpose of identifying physical constraints, public, residential, commercial, and industrial facilities as well as cultural and biological resources within the Plan area. The policies in the Inyokern Specific Plan for hazards and hazardous materials applicable to the Project are provided below. The Inyokern Specific Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the Project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

Land Use, Open Space, and Conservation Element; 1.1: Physical Constraints

- Policy 1 Zoning and other land use controls will be used to regulate, and prohibit, if necessary, future development when physical hazards exist.
- Policy 4 Kern County building, health, and fire codes and standards shall be strictly enforced to minimize the possibility of hazards relevant to certain physical constraints.

Land Use, Open Space, and Conservation Element; 1.1: Public Facilities

- Policy 7 New development will be required to demonstrate the availability of adequate fire protection and suppression facilities.

Kern County Multi-Hazard Mitigation Plan (2020)

The Kern MJHMP, including Volume 1 and 47 Annexes, were approved by FEMA on April 9, 2021. Some jurisdictions' HMPs, referred to as "Wave Two," were approved by FEMA on October 14, 2021, and retain the same approval date for plan expiration of April 9, 2021. The Plan was developed by a Hazard Mitigation Planning Committee and identifies goals, objectives and actions pertaining to mitigating impacts from identified natural hazards.

Kern County and Incorporated Cities Hazardous Waste Management Plan (HWMP)

The HWMP is a countywide planning document prepared pursuant to Chapter 1504 of the Statutes of 1986 (AB 2948). The HWMP identifies and characterizes hazardous waste generators, treatment, storage, and disposal facilities (TSDFs), and transportation routes throughout Kern County and its incorporated cities. It establishes policies and programs for the safe management of hazardous waste countywide, including siting criteria for hazardous waste facilities, goals for reducing hazardous waste generation at the source, and provisions for Household Hazardous Waste (HHW) collection. The Plan is administered by the Kern County Planning and Natural Resources Department in coordination with the Kern County Environmental Health Services Division and the California Department of Toxic Substances Control (DTSC).

The HWMP requires that new or expanded Other Waste (non-hazardous landfill) facilities be consistent with the General Plan provisions and applicable special treatment and conservation element provisions and require Conditional Use Permits for the establishment or expansion of such facilities. The commercial transportation of hazardous materials, identification and designation of appropriate shipping routes shall be in conformance with the adopted Kern County and Incorporated Cities Hazardous Waste Management Plan.

Kern County Wildland Fire Management Plan

The Kern County Wildland Fire Management Plan documents the assessment of wildland fire situations throughout the State Responsibility Areas (SRAs) within the County. The Kern County Fire Department Wildland Fire Management Plan provides for systematically assessing the existing levels of wildland protection services and identifying high-risk and high-value areas that

are potential locations for costly and damaging wildfires. The goal of the plan is to reduce costs and losses from wildfire by protecting assets at risk through focused pre-fire management prescriptions and increasing initial attack success. Based on this assessment, preventive measures are implemented, including the creation of wildfire protection zones.

Kern County Airport Land Use Compatibility Plan (ALUCP)

The Kern County ALUCP establishes procedures and criteria in which the County and affected incorporated cities can address compatibility issues when making planning decisions in regard to airports and the land uses around them. The Kern County ALUCP policies apply to 16 airports located within Kern County, including Inyokern Airport. The ALUCP maps airport influence areas as zones as A, B1, B2, C, D, E1 and E2, ranging from the most restrictive Zone A to the least restrictive Zone E, and identifies policies and compatibility criteria within each of those zones.

Proposals for public or private land use developments that occur within defined airport influence areas are subject to compatibility review. The principal airport land use compatibility concerns addressed by the ALUCP are (1) exposure to aircraft noise, (2) land use safety with respect to both people and property on the ground and the occupants of the aircraft, (3) protection of airport airspace, and (4) general concerns related to aircraft overflights.

According to the Kern County ALUCP, the Project site is in the Airport Influence Area of the Inyokern Airport. Section 4.5 of the ALUCP addresses the Inyokern Airport and the land uses and procedures relative to its aviation and includes height restrictions, and other compatibility criteria. In addition, due to the location of the site within the R-2508 Complex, the Project falls within the following notification categories established in Section 4.17.3 of the ALUCP:

- Any structure within 75 miles of the R-2508 Complex that is greater than 50 feet tall.
- Any environmental document or discretionary Project within 25 miles of the military installation boundaries.
- Any Project that would create environmental impacts (e.g., visibility, elevated obstructions) within 25 miles of the R-2508 Complex.
- Any Project within 25 miles of the centerline of any route/corridor.

Kern County Fire Code

Chapter 17.32 of the Kern County Municipal Code details the Kern County Fire Code, which is an adoption of the 2016 California Fire Code and the 2015 International Fire Code with some amendments. The purpose of the Kern County Fire Code is to regulate the safeguarding of life, property, and public welfare to a reasonable degree from the hazards of fire, hazardous materials release and/or explosion due to handling of dangerous and hazardous materials, conditions hazardous to life or property in the occupancy and use of buildings and premises, the operation, installation, construction, and location of attendant equipment, the installation and maintenance of adequate means of egress, and providing for the issuance of permits and collection of fees.

Kern County Fire Department Unit Strategic Fire Plan

The KCFD Unit Strategic Fire Plan, adopted in 2022, is the most current document that assesses the wildland fire situation throughout the SRA within the County. Similar to other plans, this

document includes stakeholder contributions and priorities and identifies strategic targets for pre-fire solutions as defined by the people who live and work within the local fire problem. The plan provides for a comprehensive analysis of fire hazards, assets at risk, and level of services to systematically assess the existing levels of wildland protection services and identifies high-risk and high-value areas that are potential locations for costly and damaging wildfires.

Additionally, the plan provides an annual report of unit accomplishments. The plan gives an overview of KCFD Battalions and ranks these areas in terms of priority needs as well as identifies the areas of SRA. According to the plan, 69 percent of Kern County areas are within a SRA. The County is broken up into six different fuel management areas, Tehachapi, Western Kern, Northern Kern, Mt. Pinos Communities, Kern River Valley, and Valley. The Project site is located within Battalion 7 of KCFD, which encompasses 253,776 acres of the northeastern portion of Kern County and includes nine fire stations.

Kern County Fire Department Review

Kern County Fire Marshal review is required for fire protection systems, hazardous materials storage, and building permits. Applicable codes include the 2022 California Fire Code, NFPA 30, NFPA 110/111, NFPA 855 (2026 edition for ESS), NFPA 13, and applicable NFPA clean-agent standards. Kern County Building and Planning Department entitlement and building permit review applies, including H-occupancy classification for fuel storage areas and WUI code compliance based on final FHSZ mapping. A pre-application meeting with Kern County Fire is strongly recommended for a facility of this scale prior to permit submittal.

Kern County Fire Prevention Standard No. 503-507 Solar Panels

The Kern County Fire Department Fire Prevention Division adopted Standard No. 503-507 Solar Panels (Ground Mounted, Commercial & Residential) on March 27, 2019. The standard is implemented in accordance with the 2016 CFC and Kern County Ordinance and is an official interpretation of the Kern County Fire Marshal's Office. The standard outlines installation requirements for photovoltaic ground-mounted and roof-mounted solar panels. The proposed Project would mount systems for the modules on steel support posts that would be pile driven into the ground and would therefore comply with the ground mounted requirements of this fire prevention standard. Ground mounted solar panel requirements of this standard include water supply, clearance and combustibles, stationary storage battery/energy storage systems, clean agent system permits, fire extinguisher placement, and emergency vehicle access (KCFD, 2019c).

Kern County Department of Environmental Health Services Division

The County of Kern Environmental Health Services Department is the CUPA for the Project area, which provides site inspections of hazardous materials programs (above ground storage tanks, USTs, hazardous waste treatment, hazardous waste generators, hazardous materials management and response plans, and the California Fire Code). This Department also provides emergency response to hazardous materials events, performing health and environmental risk assessment and substance identification.

4.9.3 Impacts and Mitigation Measures

Methodology

The proposed Project's potential impacts to hazards and hazardous materials have been evaluated using a variety of resources, including the Phase I Environmental Site Assessment prepared for the Project. The proposed Project was evaluated for adequate accessibility for emergency responders based on the Project location, construction plans, and site plans, and any potential alterations to existing evacuation routes and plans. The methodology for determining impacts relating to wildland fires focuses on the fire severity at the Project site and the surrounding areas based on existing State and local maps and land characteristics. Using the aforementioned resources and professional judgment, impacts were analyzed according to CEQA significance criteria described below.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the *CEQA Guidelines*, to determine if a Project could potentially have a significant adverse effect related to hazards and hazardous materials.

A Project would have a significant impact related to hazards and hazardous materials if it would:

- (a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- (b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- (c) Emit hazardous emissions or involves handling hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school;
- (d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- (e) For a project located within the adopted Kern County Airport Land Use Compatibility Plan, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area;
- (f) For a project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area;
- (g) Impair implementation of, or physically interferes with, an adopted emergency response plan or emergency evacuation plan; or
- (h) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Project Impacts

Impact 4.9-1: Would the Project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Construction

The Project would involve the routine transport, use, and storage of hazardous materials during construction in quantities typical of large-scale industrial and data center construction. Construction-phase hazardous materials would include diesel fuel and gasoline for heavy construction equipment (dozers, excavators, cranes, and concrete trucks), lubricating oils and hydraulic fluids, solvent-based paints and coatings, adhesives and sealants, epoxy systems and surface preparation chemicals, welding gases (acetylene, oxygen, and argon cylinders), and late-stage commissioning chemicals including refrigerant, glycol, and water treatment chemicals. Safety Data Sheets (SDS) for all applicable materials would be maintained on-site and made available to on-site personnel in accordance with required best management practices (BMPs) as part of a Stormwater Pollution Prevention Plan (SWPPP) (see Section 4.10, *Hydrology and Water Quality*) and as required by MM 4.9-6 (Operations Health and Safety Program (OHSP)). Workers would be trained to properly identify and handle all hazardous materials. Hazardous waste would be either recycled or disposed of at a permitted and licensed treatment and/or disposal facility. All hazardous waste shipped off-site for recycling or disposal would be transported by a licensed and permitted hazardous waste hauler and disposed of at an approved location.

During construction, non-hazardous construction debris would be generated and disposed of in local landfills. Sanitary waste would be managed using portable toilets located on-site. Fuels and lubricants used on field equipment would be subject to the Material Disposal and Solid Waste Management Plan and the SPCC Plan requirements to limit releases of hazardous materials and wastes. Recyclable materials including wood, shipping materials, and metals would be separated when possible for recycling. Liquids and oils in transformers and other equipment would be used in accordance with applicable regulations. The disposal of all oils, lubricants, and spent filters would be performed in accordance with all applicable regulations including the requirements of licensed receiving facilities. The Project would comply with all applicable federal, State, and local regulations governing the transport, use, storage, and disposal of hazardous materials during construction, including the Kern County and Incorporated Cities Hazardous Waste Management Plan. Construction-phase hazardous materials handling would be less than significant with compliance with applicable regulations and implementation of MM 4.9-1 and MM 4.9-2.

Operation

Any hazardous materials that would be used would be stored onsite and in designated areas in accordance with an HMBP (see below). The Project site would be enclosed by an approximately 7- and 8-foot fence to prevent public access to hazardous materials and the PV panels. The interconnection (power line) portions of the Project would not require use of hazardous materials during operation.

During operation, hazardous materials use would be associated with the backup diesel generator system, cooling plant, electrical infrastructure, and facility maintenance activities. The Project site would be accessed only by authorized personnel; the site perimeter would be secured by fencing to prevent public access to hazardous materials storage areas and electrical infrastructure. The 600,000-gallon on-site diesel fuel inventory would be stored in six UL-2085 double-wall aboveground storage tanks (ASTs) within PE-certified secondary containment berms in accordance with 40 CFR Part 112 (SPCC Plan) and NFPA 30. Diesel fuel would be delivered by licensed tanker truck via US 395 and SR-178 and transferred to ASTs through a contained transfer area. Generator engine oil, coolant, diesel exhaust fluid (DEF), and SCR catalyst modules would be managed and disposed of in accordance with RCRA/Title 22 requirements and applicable California hazardous waste regulations.

Operation and maintenance (O&M) activities would include routine inspection and testing of diesel generators (limited to 100 hours per year under RICE NESHAP emergency engine classification), cooling tower maintenance, chiller plant servicing, UPS battery system maintenance, transformer fluid sampling and management, and fire suppression system inspections. Typical O&M vehicles would include pickup trucks and flatbed trucks for routine and unscheduled maintenance. Large heavy-haul transport equipment and cranes may be brought to the Project site infrequently for major equipment repair or replacement. Long-term maintenance and equipment replacement would be scheduled in accordance with manufacturer specifications and applicable regulatory requirements. Any hazardous materials used during operations would be stored on-site in designated areas in accordance with the Hazardous Materials Business Plan (HMBP) required by MM 4.9-1. The HMBP would be prepared and submitted to the Kern County Environmental Health Services Division prior to operations, as required by MM 4.9-1. The Project will also comply with MM 4.9-3 (Hazardous Material Inventory), MM 4.9-6 (Operations Health and Safety Program (OHSP)), and MM 4.9-8 (CHP Hazmat Transport permit). With implementation of Mitigation Measures MM 4.9-1, MM 4.9-2, MM 4.9-3, MM 4.9-6, and MM 4.9-8 operational impacts related to the routine transport, use, and disposal of hazardous materials would be less than significant.

A summary of the Project's transport, use, or disposal of hazardous materials is provided in the below Table 4.9-B Hazards Technical Area Summary.

Mitigation Measures: Implementation of MM 4.9-1, MM 4.9-2, MM 4.9-3, MM 4.9-6, and MM 4.9-8 would be required.

Significance of Impacts: With the implementation of the stated mitigation measures impacts would be *less than significant*.

Impact 4.9-2: Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

The discussion under Impact 4.9-1 addresses the Project's transport, use, or disposal of hazardous materials, and is incorporated herein by reference.

Further, as discussed in the *Environmental Setting* component of this section, the MJHMP 2020 Update identifies the natural hazards that pose the greatest risks to Kern County and its participating jurisdictions. Three (3) risk factors cited in the MJHMP 2020 Update that constitute reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment by the Project include:

Dam Failure, Flood, Levee Failure: The nearest dam to Inyokern, CA is the Isabella Dam (or Lake Isabella Main Dam), located approximately 45–50 miles west in Lake Isabella, CA and area that is separated from the Project Site by the Tehachapi Mountain. It is owned by the U.S. Army Corps of Engineers and regulates the Kern River, with a total capacity of 568,000 acre-feet. Due to the distance and geographic boundary formed by the Tehachapi Mountain between the Dam and the Project Site the risk of accident conditions is not likely. Moreover, the Project Site is located in FEMA Zone A. The Hydrology Study (Appendix 4.10) states that regional floodwater from Little Dixie Wash does not reach the Project area and on-site maximum depth is generally less than 1 foot. The Project Site includes an on-site retention basin sized at 2.2 acre-feet (10-year, 5-day storm criterion) with a design objective to keep ponding below 18 inches draining within 7 days. There is no underground storm drain infrastructure on the main site; the site grades naturally toward the retention basin. This configuration is important to hazards analysis because the absence of a direct storm drain outlet reduces off-site spill migration potential, and the retention basin becomes the critical containment node and must be evaluated in the SPCC Plan for interaction with fuel yard secondary containment.

Hazardous Materials: Substantial fuel and fluid inventories make accidental release a risk factor. However, considering the information provided in Table 4.3 (Construction Hazardous Materials Inventory), Table 4.4 (Operational Hazardous Materials and Waste Streams), Table 4.5 (Construction Waste Streams, Table 4.6 (Operational Waste Stream Estimates), and Table 4.7 (Hydrology, Stormwater, Spill Path), the Project has appropriate safeguards against accidental release of hazardous materials and would be governed by the following mitigation measures: MM 4.9-1 (Hazardous Materials Business Plan), MM 4.9-2 (Fire Safety and Emergency Response), MM 4.9-3 (Hazardous Materials Inventory), MM 4.9-4 (Inyokern CSD conditions relating to water impacts), MM 4.9-5 (Inyokern CSD requirements for fire hazard), MM 4.9-7 (RCRA reporting requirements), and MM 4.9-8 (CHP Transport Permits). Accidental release impacts would be less than significant given the rigorous and comprehensive control systems discussed in this section.

Wildfire: The Project Site is not located within an SRA or VHFHSZ and is mapped within an LRA non-VHFHSZ area. The wildfire hazard mapping prepared for the Project identifies the Site as flat desert floor with sparse desert scrub and a low wildfire risk. The Project Site is relatively flat, eliminating slope as a contributing factor to fire spread. Prevailing winds could influence the direction of a regional fire; however, limited vegetation on and around the Project site reduces the potential for a large, wind-driven wildfire originating at the site. Although no Community Wildfire Protection Plan (CWPP) has been adopted for the Indian Wells Valley or Inyokern area, the Project is not expected to substantially impair emergency response or evacuation. Construction activities would be managed to maintain emergency access on surrounding roadways, including SR-178 and US-395, and site access and internal circulation would be designed to meet KCFD and CFC requirements for emergency vehicle access. The Project's internal circulation and access design would be coordinated with KCFD to confirm compatibility with emergency response operations.

Wildfire impacts, with the implementation of MM 4.9-2 and MM 4.9-9 would be less than significant.

Mitigation Measures: Implementation of MM 4.9-1 through through MM 4.9-9 would be required.

Significance of Impacts: With the implementation of the stated mitigation measures impacts would be *less than significant*.

Impact 4.9-3: Would the Project emit hazardous emissions or involves handling hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.

There are nearby sensitive receptors located near the Project Site. The Inyokern Elementary School and the Inyokern Senior Center is located approximately 0.22 miles and 0.24 miles, respectively, to the southwest of the Project Site, and the nearest residential receptors are located approximately 500 feet southwest of the Project Site west of Brown Road and east of the Project Site across United States 395 (US 395) and Clodt Road. Additional residential receptors are located to the south of the Project Site north and south of Sunset Avenue/Ward Avenue.

4.9-3(A) Hazardous Emissions Impacts to Existing or Proposed School

As evaluated in the discussion in this section and below relating to the Project's "Accidental Release Modeling Protocol – Appendix B (g)(10)(D)", the Applicant analyzed the primary accidental release scenarios for the Project including (1) diesel fuel release from an AST or tanker transfer event; (2) battery thermal runaway event with release of electrolyte or off-gas; and (3) refrigerant release from the chiller plant. The modeling protocol for any accidental release requiring off-site consequence analysis would use EPA's RMP*Comp or CAMEO/ALOHA model (or equivalent CalARP-approved screening tool) as follows: model input assumptions include worst-case meteorological conditions (Class F stability, 1.5 m/s wind speed, 25th percentile ambient temperature), instantaneous release from the largest single container (100,000-gallon AST for diesel; largest single battery string for BESS; single chiller refrigerant charge), and ground-level release with no passive mitigation.

Because the Project is currently in the conceptual design phase, final equipment quantities, tank configurations, refrigerant system sizing, and BESS chemistry have not been fully determined. Accordingly, full quantitative off-site consequence modeling cannot be completed at this stage. The complete accidental release modeling analysis, including off-site endpoint distances and receptor exposure estimates for each scenario, would be provided following the completion of final Project engineering and prior to filing of the complete Application. The protocol described above would govern the modeling methodology when that analysis is performed.

Nevertheless, the Project has appropriate safeguards against accidental release of hazardous materials and would be governed by the following mitigation measures: MM 4.9-1 (Hazardous Materials Business Plan), MM 4.9-2 (Fire Safety and Emergency Response), MM 4.9-3 (Hazardous Materials Inventory), MM 4.9-4 (Inyokern CSD conditions relating to water impacts),

MM 4.9-5 (Inyokern CSD requirements for fire hazard), MM 4.9-7 (RCRA reporting requirements), and MM 4.9-8 (CHP Transport Permits). Accidental release impacts would be less than significant given the rigorous and comprehensive control systems discussed in this section.

As discussed in detail in Section 4.3, *Air Quality*, and specifically in the impacts analysis in Section 4.3.3, the Project area is located within Kern County in the northeastern portion of the Mojave Desert Air Basin (MDAB or Basin) over which the EKAPCD has jurisdiction to regulate air pollutant emissions including the National Ambient Air Quality Standards (NAAQS) EPA-set standards under the Clean Air Act to protect public health ("primary") and welfare ("secondary") from harmful air pollutants. NAAQS cover six criteria pollutants—particulate matter (PM), ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead. Recent NAAQS updates targeting fine particles (PM_{2.5}) were made in 2024. The CARB sets California Ambient Air Quality Standards (CAAQS) for the same six pollutants, as well as for the following four additional pollutants: Sulfates, Hydrogen Sulfide, Vinyl Chloride, and Visibility-Reducing Particles. CARB also has on- and off-road engine emission-reduction programs and regulates stationary sources.

As noted above, the EKAPCD has been designated as unclassifiable/attainment for the NAAQS for CO, PM₁₀, PM_{2.5}, and Lead, serious nonattainment for the O₃ eight-hour average standard, attainment for the O₃ one-hour average standard and unclassified for NO_x and SO_x. A federal designation for hydrogen sulfide (H₂S) has not been made.

The EKAPCD has been designated as nonattainment for the state one-hour and eight-hour standards for O₃, and PM₁₀, unclassified PM_{2.5} and CO, and attainment for NO_x, SO_x, and Lead. A state designation for hydrogen sulfide (H₂S) has not been made.

According to the EKAPCD Guidelines and Thresholds of Significance, which apply to a project located within the proposed project area would result in a significant impact if it exceeds any of the thresholds are presented in **Table 4.9-10** (Restating Table 4-1, AQIA)

**Table 4.9-10 (Restating Table 0-1)
EKAPCD CEQA Thresholds of Significance**

Criteria Pollutant	Significance Level	
	Daily (Indirect Mobile Only)	Annual
NO _x	137 lbs/day	25 tons/yr
ROG	137 lbs/day	25 tons/yr
SO _x	-	27 tons/yr
PM ₁₀	-	15 tons/yr
PM _{2.5}	-	15 tons/yr

Source: EKAPCD 1999 and EKAPCD 2000.

Threshold for Ambient Air Quality Impacts

The CEQA Guidelines – Appendix G (Environmental Checklist) states that a Project that would “*violate any air quality standard or contribute substantially to an existing or Projected air quality violation*” would be considered to create significant impacts on air quality. Therefore, an AQIA should determine whether the emissions from a Project would cause or contribute significantly to violations of the NAAQS or CAAQS (presented above in **Table 4.9-10**) when added to existing ambient concentrations.

The EPA has established the federal Prevention of Significant Deterioration (PSD) program to determine what comprises “significant impact levels” (SIL) to NAAQS attainment areas. A Project’s impacts are considered less than significant if emissions are below PSD SIL for a particular pollutant. When a SIL is exceeded, an additional “increment analysis” is required. As the Project would not include modification to the stationary source under New Source Review (NSR), it would not be subject to either PSD or NSR review. The PSD SIL thresholds are used with ambient air quality modeling for a CEQA Project to address whether the Project would “*violate any air quality standard or contribute substantially to an existing or Projected air quality violation.*” Ambient air quality emissions estimates below the PSD SIL thresholds would result in less than significant ambient air quality impacts on both a Project and cumulative CEQA impact analysis. The MDAB is classified as non-attainment/marginal for the 8-hour O₃ NAAQS and, as such, is subject to non-attainment NSR. PSD SILs and increments are more stringent than the CAAQS or NAAQS and represent the most stringent thresholds of significance.

Thresholds for Hazardous Air Pollutants

The EKAPCD’s Guidelines state, that a Project result in a significant impact if it exceeds that District’s health risk notification thresholds presented in **Table 4.9-11** (Restating Table 4-2, AQIA)

Table 4.9-11(Restating Table 4-2, AQIA)
Measures of Significance – Toxic Air Contaminants

Agency	Level	Description
Significance Thresholds Adopted for the Evaluation of Impacts Under CEQA		
EKAPCD	Carcinogens	Maximally Exposed Individual risk equals or exceeds 10 in one million.
	Non-Carcinogens	Acute: Hazard Index equals or exceeds 1.0 for the Maximally Exposed Individual. Chronic: Hazard Index equals or exceeds 1.0 for the Maximally Exposed Individual.

Source: EKAPCD, 1996

Global Climate Change Thresholds of Significance

On March 8, 2012, the EKAPCD adopted the *Addendum to CEQA Guidelines Addressing GHG Emission Impacts for Stationary Source Projects When Serving as Lead CEQA Agency*; which

outlined the EKAPCD's Project-Specific CEQA significance thresholds for GHG emissions (EKAPCD 2012):

- If Project is exempt from CEQA due to either a statutory or categorical exemption, no further analysis under CEQA is required.
- Project-Specific GHG Emissions must be quantified if the Project is not exempt from CEQA.
- Project is considered to have a less than significant impact or not have a cumulatively considerable impact on GHG emissions if it meets one of the following conditions:
 - Project-Specific GHG emissions are less than 25,000 tons per year (tpy);
 - Project demonstrates to EKAPCD that it is in compliance with state GHG reduction plan such as AB 32 or future federal GHG reduction plan if it is more stringent than state plan; or
 - Project GHG emissions will be mitigated to a less than significant impact if GHGs can be reduced by at least 20% below Business-As-Usual (BAU) through implementation of one or more of the following strategies:
 - Compliance with a Best Performance Standard (BPS) as set forth in Section VI of this Policy;
 - Compliance with GHG Offset as detailed in Section VI of this Policy;
 - Compliance with an Alternative GHG Reduction Strategy as discussed in Section VII of this Policy.
- If none of the above is met the Project will be deemed significant and an Environmental Impact Report (EIR) will be required.

Project Related Emissions

This analysis was prepared pursuant to the EKAPCD's *Guidelines for Implementation of the California Environmental Quality Act, July 1, 1999 Revision*. The guidelines do not necessarily require a quantification of construction emissions for all Projects. Construction emissions quantification is typically required only at the request of the lead agency. The EKAPCD generally assumes that implementation of any construction-related mitigation measures will result in construction emissions impacts that are *less than significant*.

Project emissions were estimated separately for each emission source. Emissions were estimated for both short-term, construction-related sources and long-term, operations-related sources. Project emissions were estimated for the following development stages:

- Short-term (Construction and Demolition) – Construction emissions of the proposed Project were estimated in CalEEMod using the Project specific estimated construction schedule and construction equipment for the development. (See AQIA Appendix A.)

- Long-term (Operations) – Long-term emissions were also estimated in CalEEMod using model defaults and Project specifics as well as AP-42 emission factors, manufacturer specifications, EPA’s Tanks Version 5.2, and EKAPCD approved emission factors and methodology (See AQIA Appendix A).

Short-Term Emissions

Short-term emissions from the construction phases of a Project would have temporary impacts on air quality.

The construction emissions analysis is based on the default CalEEMod load and emission factors for the Project specific equipment and applying model defaults as well as a conservative analysis approach. Construction emissions were estimated under the assumption that construction would begin in 2027 lasting 48 months. The dates entered into the CalEEMod program represent the earliest construction timeline, which would estimate the worst-case emissions as construction equipment technology and emissions improve over time; therefore, all estimated emission totals are conservative and reflect a reasonable and legally sufficient estimate of potential impacts.

Adjustments to the CalEEMod default values were as follows:

- Land use lot acreage was adjusted to match the Project description.
- Demolition construction phase was removed as the Project Location is open land.
- Length of construction schedule was adjusted to match anticipated 48-month schedule.
- Equipment type, amount and usages were adjusted to match anticipated Project specific values.

Even though unmitigated emissions would be less than the air quality thresholds, the Project also must comply with EKAPCD Rule 402 to limit fugitive dust emissions. To ensure compliance, the following mitigation measures were applied in CalEEMod resulting in Mitigated emissions shown in Table 4.9-12 (Restating Table 4-3, AQIA:

- Water exposed area three times per day.
- Reduce vehicle speed to less than 15 miles per hour on unpaved roads.

Table 4.9-12 presents the Project’s short-term emissions based on the anticipated construction period.

As calculated with CalEEMod, the estimated short-term construction-related emissions would not exceed EKAPCD significance threshold levels during any given year and would, therefore, be *less than significant*.

Table 4.9-12 (Restating Table 4-3, AQIA)
Short-Term Project Emissions

Emissions Source	Pollutant (tons/year)					
	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
2027	0.29	1.72	4.75	0.01	0.54	0.16
2028	15.7	1.89	6.62	0.01	0.59	0.18
2029	11.6	1.30	3.68	0.01	0.61	0.16
2030	2.00	1.09	2.44	0.01	0.59	0.16
Significance Threshold	25	25	NA	27	15	15
Is Threshold Exceeded for a Single Year After Mitigation?	No	No	No	No	No	No

Source: QK 2026

Long-Term Operational Emissions

Long-term emissions are caused by operational mobile sources, area source emissions from the on-Site building, and stationary sources.

Fugitive Dust Emissions

Operation of the Project Site at full build-out is not expected to present a substantial source of fugitive dust (PM₁₀) emissions. The main source of PM₁₀ emissions would be from vehicular traffic associated with the Project Site.

PM₁₀, on its own as well as in combination with other pollutants, creates a health hazard. EKAPCD's Rule 402 and 419 implement required control measures to assist in minimizing these emissions.

- Rule 402 – Fugitive Dust – The purpose of this Rule is to prevent, reduce, and mitigate ambient concentrations of anthropogenic fugitive dust emissions to an amount sufficient to attain and maintain the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS).
- Rule 419 - Nuisance – A person shall not discharge from any source whatsoever of such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.

The Project would comply with applicable EKAPCD Rules and Regulations, the local zoning codes, and additional emissions reduction measures recommended later in this analysis, in Section 7 of the AQIA, Mitigation and Other Recommended Measures.

Employee Trip and Building Emissions

Project-related transportation activities from industry would generate mobile source ROG, NO_x, SO_x, CO, PM₁₀, and PM_{2.5} exhaust emissions. Exhaust emissions would vary substantially from day to day but would average out over the course of an operational year. The variables factored into estimating total Project emissions include level of activity, Site characteristics, weather conditions, and number of employees. Emissions were estimated with CalEEMod using average daily trip counts from the traffic study and default trips lengths and fleet mix. CalEEMod was also used to estimate area source emissions from the on-Site buildings and facility uses.

Stationary Source Emissions

Project-related stationary sources will also generate criteria pollutants from the proposed 40 emergency generators (ROG, NO_x, SO_x, CO, PM₁₀, and PM_{2.5}), cooling towers (PM₁₀ and PM_{2.5}), and fuel storage (VOC).

Emergency Generators

Backup power for the facility will be provided by 40 Caterpillar diesel-fired generators. The base engines are EPA Tier 2-certified for Emergency Stationary Applications. All generators are equipped with externally applied Johnson Matthey CompactSCRT aftertreatment, including Selective Catalytic Reduction (SCR), Diesel Exhaust Fluid (DEF) tanks, and Diesel Particulate Filters (DPF), achieving Tier 4 Final-equivalent emission levels at stack. Under standard emergency operation, when all generators are active, each unit will operate at no more than 80 percent of its peak rated capacity to ensure reliability and longevity.

Each generator will be supplied as an integrated package system containing both the prime mover and alternator, controlled by a dedicated programmable logic controller (PLC) located within the 480-volt main switchboard of the corresponding data center facility. Each generator will operate autonomously, with its own independent PLC designed to automatically initiate generator startup upon loss of utility power. Once utility service is restored and verified as stable, the PLC will transfer the load back to utility power and shut down the generator in a controlled sequence.

Each generator package will incorporate its SCR system and DEF storage tank within a compact enclosure. Generators will be installed within two secured generator yards, positioned on opposite sides of the main building to ensure load distribution and operational redundancy. All generators will be installed within secondary containment basins to mitigate potential environmental impacts in the event of fuel or fluid leakage. All generators would be operated routinely, i.e., readiness and maintenance testing, to ensure that they would function normally during an emergency event.

During routine readiness testing, criteria pollutants would be emitted directly from the generators. Criteria pollutant emissions from generator testing were quantified using information provided by the manufacturer. SO₂ emissions were based on the maximum sulfur content allowed in California diesel (15 parts per million by weight), and an assumed 100 percent conversion of fuel sulfur to SO₂. For conservative evaluation purposes, it was assumed that testing would occur for no more than 50 hours per year. 50 hours per year per engine is the limit specified by the Airborne Toxic Control Measure for Stationary Toxic Compression Ignition Engines (Title 17, Section 93115, CCR). The Applicant is not proposing a test schedule, i.e., hours versus load points. Testing will

be done based upon the Applicants' judgment, considering the manufacturers' recommendations, staff availability, and necessity. For purposes of this Application, emissions were assumed to occur at 100% load, however, varying loads and warm-up conditions were considered for compliance with ambient air concentrations and health risk. Appendix A of the AQIA presents the engine emissions based upon the 100%, 75%, 50%, 25% and 10% load points. The engines were evaluated for criteria pollutants significance thresholds for the following emissions scenarios:

- Running for 50 hours per year for maintenance and readiness operations, at 100% load with a guaranteed Tier 4 emissions level.
- Running for 150 hours per year for emergency operations, at 100% load with a guaranteed Tier 4 emissions level.

Emergency generator emission calculations can be found in Appendix A and Manufacture Data can be found in Appendix D of the AQIA.

Cooling Towers

The chiller plant will include both high-temperature and low-temperature water-cooled chillers, supported by the hybrid cooling chillers. The high-temperature chillers and cooling chillers will supply cooling water for both direct liquid cooling of IT racks and air cooling of the data halls. Cooling water will be distributed to coolant distribution units, which will transfer heat to technical water that is then circulated to the IT racks for direct liquid cooling. The low-temperature chillers and cooling towers will provide chilled water for air cooling in critical electrical rooms and other technology spaces.

The Project will use potable water supplied by the Inyokern CSD. Cross-connection and backflow protections will comply with Title 17 of the California Code of Regulations.

Both data halls and office areas will require minimal humidification. Although these systems consume less water than the cooling towers, they will still be connected to the same water treatment systems. The cooling chillers will generate some discharge, while the humidification system will produce a negligible amount. Cooling towers will operate at a minimum of 5.0 cycles of concentration, consistent with Inyokern CSD Will Serve Letter requirements, and discharge water will be managed in accordance with a customized water treatment plan.

Non-IT areas—such as administrative offices, loading zones, storage rooms, and corridors—will be conditioned using a network of variable refrigerant flow (VRF) split-system air conditioners. These systems will include roof-mounted condensing units and distributed fan coil units throughout the spaces.

Particulate matter (PM₁₀ and PM_{2.5}) emissions from cooling towers occur primarily due to “drift,” which is the release of tiny water droplets carried out of the tower with the exhaust air. As warm process water is cooled, air is drawn or forced through the tower, and a small fraction of fine droplets can escape despite the presence of drift eliminators. These droplets contain dissolved and suspended solids (such as minerals, treatment chemicals, and corrosion byproducts), which become particulate matter once the water evaporates in the atmosphere. The PM₁₀ and PM_{2.5} emissions were calculated using the AP-42 Section 13.4 methodology incorporating Project

specifications, control efficiencies and in practice assumptions and are presented in Appendix A of the AQIA.

Fuel Storage

The backup generators will primarily operate on renewable diesel when available. When renewable diesel is not readily accessible, ultra-low sulfur diesel will be used as an alternative. Each generator will have built-in fuel tanks and connections to additional on-Site fuel storage.

The six 100,000 gallon diesel fuel storage tanks will be double-walled with integrated leak detection systems or installed within secondary containment structures. Kern County Code Section 18.80.030(T) requires the Kern County Fire Marshal to approve the storage of flammable and combustible liquids in excess of 12,000 gallons per tank and an aggregate maximum of 48,000 gallons, when accessory to a permitted use in the M-2 Zoning District. The Project has requested written approval from the Kern County Fire Marshal to store the proposed six 100,000 gallons of storage tanks, with an aggregate total of 600,000 gallons.

Combined, the generator and secondary fuel tanks will provide sufficient diesel storage to sustain 24 to 72 hours of continuous emergency operation at the data center's full electrical load under worst-case conditions.

Fugitive emissions from diesel fuel storage occur primarily due to the volatilization of light hydrocarbons during routine storage and handling activities. Although diesel fuel has a relatively low vapor pressure compared to gasoline, small amounts of vapor are released through tank vents as a result of temperature changes (causing expansion and contraction of vapors), barometric pressure fluctuations, and liquid level changes during filling and withdrawal ("breathing" and working losses). Additional minor emissions can occur from equipment components such as valves, fittings, and transfer connections. These fugitive vapors consist mainly of volatile organic compounds (VOCs), with emission rates influenced by fuel composition, tank design (e.g., fixed-roof vs. pressure/vacuum vented), ambient temperature, and turnover rate. Emissions from routine losses were calculated using EPA's Storage Tank Emissions Calculation Application Version 5.2 (Tanks5.2) and the output is presented in Appendix A of the AQIA.

Projected Emissions

The proposed Project is expected to have long-term air quality impacts as shown in **Table 4.9-13** (Restating Table 4-4, AQIA). Emission calculations are available in Appendix A of the AQIA.

**Table 4.9-13 (Restating Table 4-4, AQIA Table 0-2)
Post-Project Max (Emergency Operations) Emissions**

Emissions Source	Pollutant (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Generator Emissions	4.97	17.74	92.24	0.18	0.53	0.53
Cooling Tower Emissions	-	-	-	-	0.58	0.12
Fuel Storage Emissions	0.02	-	-	-	-	-
Mobile and Area Emissions	1.90	0.86	3.53	0.01	0.54	0.17
Total Emissions	6.89	18.6	95.77	0.19	1.65	0.82
EKAPCD Threshold	25	25	NA	27	15	15
Is Threshold Exceeded After Mitigation?	No	No	No	No	No	No

As shown in the below Table 4.9-13 (Restating Table 4-5, AQIA), operations-related emissions, as calculated in Appendix A of the AQIA, would not exceed the EKAPCD significant threshold levels. Therefore, the operational emissions of the Project is less-than-significant for

**Table 4.9-13 (Restating Table 4-5, AQIA)
Post-Project Mobile Only Emissions**

Emissions Source	Pollutant (lbs/day)	
	ROG	NO _x
Mobile Emissions	1.34	1.68
EKAPCD Threshold	137	137
Is Threshold Exceeded After Mitigation?	No	No

Potential Impacts from Carbon Monoxide

Ambient CO concentrations normally correspond closely to the spatial and temporal distributions of vehicular traffic. Relatively high concentrations of CO would be expected along heavily traveled roads and near busy intersections. CO concentrations are also influenced by wind speed and atmospheric mixing. CO concentrations may be more uniformly distributed when inversion conditions are prevalent in the valley. Under certain meteorological conditions, CO concentrations along a congested roadway or intersection may reach unhealthful levels for sensitive receptors, e.g., children, the elderly, hospital patients, etc. This localized impact can result in elevated levels of CO, or “hotspots,” even though concentrations at the closest air quality monitoring station may be below NAAQS and CAAQS.

The localized Project impacts depend on whether ambient CO levels in the Project vicinity would be above or below NAAQS. If ambient levels are below the standards, a Project is considered to

have significant impacts if a Project's emissions would exceed one or more of these standards. If ambient levels already exceed a State standard, a Project's emissions are considered significant if they would increase 1-hour CO concentrations by 10 ppm or more or 8-hour CO concentrations by 0.45 ppm or more.

A traffic study was completed for this Project (Ruetters, 2026). According to the traffic study, impacted intersections and roadway segments are anticipated to operate at a LOS of C or better. Therefore, CO "hotspot" modeling was not conducted for this Project, and no concentrated excessive CO emissions are expected to be caused once the proposed Project is completed.

Predicted Health Impacts

Projects are considered for potential health risks wherein a new or modified source of Hazardous Air Pollutants (HAPs) is proposed for a location near an existing residential area or other sensitive receptor when evaluating potential impacts related to HAPs.

The proposed Project would result in emissions of HAPs from construction and operational activities and would be located near existing residents; therefore, an assessment of the potential risk to the population attributable to emissions of hazardous air pollutants from the proposed Project is required.

To predict the potential health risk to the population attributable to emissions of HAPs from the proposed Project, ambient air concentrations were predicted with dispersion modeling to arrive at a conservative estimate of increased individual carcinogenic risk that might occur as a result of continuous exposure over a 70-year lifetime for operational emissions and over the construction period for construction emissions. Similarly, predicted concentrations were used to calculate non-cancer chronic and acute hazard indices, which are the ratio of expected exposure to acceptable exposure. The basis for evaluating potential health risks is the identification of sources with increased HAPs. HAP emissions from anticipated on-Site construction activities, exhaust emissions and ammonia slip from emergency generators, drift emissions from the cooling towers, and fugitive emissions from the storage tanks were evaluated for normal operating conditions (emergency generators operating 50 hours per year).

The proposed emergency generators are based on operation at 100% load. The generator is limited to a maximum of 50 hours per year for maintenance and testing. Operation at 100% load represents the maximum fuel consumption rate and provides a conservative steady-state emission condition for purposes of estimating annual emissions.

Chronic non-cancer hazard indices and lifetime cancer risk are based on annual average concentrations derived from total annual emissions distributed over 8,760 hours per year. Cancer risk calculations further incorporate long-term exposure durations of 70 years for lifetime exposure. Because the generator's annual operating hours are limited and the risk metrics are driven by total annual emissions, short-term operational variability, including elevated emissions during startup or warm-up, has a negligible effect on annual average concentrations and the resulting chronic hazard indices and lifetime cancer risk.

Diesel particulate matter (DPM) does not have an established acute reference exposure level (REL), so brief elevated emissions during startup or warm-up are not evaluated for acute health

risk. Overall, the 100% load assumption provides a reasonable, conservative, and technically defensible basis for evaluating potential long-term health risks associated with operation of the emergency generator.

DPM emissions from diesel on-Site construction equipment were modeled as an area source for on-Site construction activity on the property. Construction DPM was calculated using CalEEMod for on-Site construction. DPM emissions from diesel fired emergency generators were modeled as point sources and calculated for maintenance and testing operation using information provided by the manufacturer. DPM emissions were assumed to equal to PM₁₀ emissions. Ammonia Slip emissions from the generators were also modeled as point sources and calculated with the assumption not to exceed 10 ppm. Cooling tower HAP emissions were modeled as area sources and were calculated utilizing a speciation spreadsheet from the San Joaquin Valley Air Pollution Control District (SJVAPCD) for Cooling Tower Water Treatment and references AP-42 Section 13.4 and water characteristics assumptions based on local water supply. Fugitive emissions from fuel storage was also modeled as area sources and calculated using a speciation spreadsheet from the SJVAPCD for Storage Tank Diesel Fugitives. All emission calculations can be found in Appendix A of the AQIA. A unit emission rate of one gram/second (g/sec) was input to AERMOD for each source. Source parameters such as stack heights and diameter and exhaust velocity and temperature used for the dispersion modeling can be found in the electronic modeling files for Appendix B of the AQIA.

Health risk is determined using the Hotspots Analysis and Reporting Program (HARP) software distributed by the CARB. HARP2 requires peak 1-hour emission rates and annual-averaged emission rates for all pollutants for each modeling source. The assumptions used to calculate the emission rates for the proposed Project are outlined below.

The most recent version of EPA's AMS/EPA Regulatory Model – AERMOD (recompiled for the Lakes ISC-AERMOD View) was used to predict the dispersion of emissions from the proposed Project. The analysis employed all of the regulatory default AERMOD model keyword parameters, including elevated terrain options.

Discrete receptors were placed on residents and businesses near the Project Site and grid receptors were placed on more densely populated areas in order to evaluate residences and businesses within close proximity of the Project Site. A total of 578 discrete off-Site receptors were analyzed. Elevated terrain options were employed even though there is not complex terrain in the Project area. The 7.5-minute DEM terrain data for Inyokern, CA, was processed with AERMAP to identify elevations for the proposed Project.

CARB-provided AERMET processed meteorological datasets for the Edwards Air Force Base monitoring station, calendar years 2012, 2016, 2017, 2019 and 2020 were input to AERMOD (CARB, 2025). This was the most recent available dataset available at the time the modeling was conducted. Rural dispersion parameters were used because the operation and the majority of the land surrounding the facility are considered “rural” under the Auer land use classification method (Auer, 1978).

Plot files generated by AERMOD were uploaded to the Air Dispersion Modeling and Risk Assessment Tool (ADMRT) program in the Hotspots Analysis and Reporting Program Version 2

(HARP2) (CARB, 2015). ADMRT post-processing was used to assess the potential for excess cancer risk and chronic and acute non-cancer effects using the most recent health effects data from the California EPA Office of Environmental Health Hazard Assessment (OEHHA) using the OEHHA Derived Method. HARP2 Site parameters were set for the mandatory minimum pathways of inhalation, homegrown gardens, soil ingestion, dermal, and mother's milk. The non-inhalation pathways used a deposition rate of 0.02 m/s along with all other default parameters. Risk reports were generated using the derived OEHHA analysis method for carcinogenic risk and non-carcinogenic chronic and acute risk. Site parameters are included in the HARP2 output files. Total cancer risk was predicted for the inhalation pathway at each receptor. A hazard index was computed for chronic and acute non-cancer health effects for each applicable endpoint and each receptor.

EKAPCD has set the level of significance for carcinogenic risk at ten in one million, which is understood as the possibility of causing 10 additional cancer cases in a population of one million people. The level of significance for chronic non-cancer risk is a hazard index of 1.0. All receptors were modeled with a 4-year exposure for construction activities and 70-year exposure for operational emissions.

The carcinogenic risk and the health hazard index (HI) for chronic non-cancer risk at the point of maximum impact (PMI) do not exceed the significance levels of ten in one million (10×10^{-6}) and 1.0, respectively for the proposed Project. The PMIs are identified by receptor location and risk and are provided in Table 4.9-14 (Restating Table 4-7, AQIA). The electronic AERMOD and HARP2 output files are provided in Appendix B of the AQIA. All receptors were modeled as residential receptors in order to be conservative.

Table 4.9-14 (Restating Table 4-7, AQIA)
Potential Maximum Impacts Predicted by HARP

	Cancer Risk	Chronic Hazard Index	Acute Hazard Index
Construction	1.89E-06	1.09E-03	--
Operational	3.74E-06	1.00E-03	6.38E-02
Total	5.63E-06	2.10E-03	6.38E-02
EKAPCD Threshold	10.0E-06	1.0	1.0
Exceedance?	No	No	No
Receptor #	1	1	1
UTM Easting (m)	426690.41	426690.41	426690.41
UTM Northing (m)	3945203.01	3945203.01	3945203.01

Note: UTM = Universal Transverse Mercator

As shown above in the above table, the maximum predicted cancer risk for the proposed Project is 5.63E-06. The maximum chronic non-cancer hazard index for the proposed Project is 2.10E-03. The maximum acute non-cancer hazard index for the proposed Project is 6.38E-03. Since the PMI

remained below the significance threshold for cancer, chronic, and acute risk, this Project would not have an adverse effect to any of the surrounding communities.

The potential health risk attributable to the proposed Project is determined to be *less than significant* based on the following conclusions:

- a. Potential carcinogenic risk from the proposed Project is below the significance level of twenty in a million at each of the modeled receptors.
- b. The hazard index for the potential chronic non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.
- c. The hazard index for the potential acute non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.

Therefore, potential risk to the population attributable to emissions of HAPs from the proposed Project would be less than significant.

This health risk analysis concludes toxic air risk metrics from all sources remain below CEQA significance thresholds. Hazardous materials handling occurs in controlled industrial settings with containment and emergency response features.

Mitigation Measures: Implementation of MM 4.9-1 through MM 4.9-9 would be required.

Level of Significance after Mitigation: *Less than significant.*

4.9-3(B) Impacts to existing or proposed schools arising from handling hazardous or acutely hazardous materials, substances, or waste.

As described in the Regulatory Setting of this section, under CCR Title 22, the term “hazardous substance” refers to both hazardous materials and hazardous waste and “Acutely hazardous materials and wastes” in California are strictly regulated under Cal/OSHA (8 CCR § 5189) and the DTSC (22 CCR), targeting substances that can cause fatal or serious injuries, such as P-listed wastes or those with high toxicity.

For completeness, the hazardous materials, substances and waste elements of the Project are listed below in **Table 4.9-5** and **Table 4.9-6** in respect to construction and operation activities of the Project.

Table 4.9-5: Construction Waste Stream Estimates

Waste Stream	Origin	Hazardous / Nonhazardous (Title 22)	Est. Annual Volume / Weight	Est. Generation Frequency	RCRA Code(s)
Diesel/gasoline-contaminated soil or debris	Equipment fueling spills, REC encounter	CA Hazardous (D001) if ignitable	Variable — 0 to several tons depending on spills	Episodic (spill-driven)	D001
Used engine oil	Heavy equipment maintenance	CA Hazardous — used oil (22 CCR §66279)	~50–200 gal/month during active earthwork	Monthly	CA 223
Used hydraulic fluid	Equipment maintenance	CA Hazardous — used oil	~20–80 gal/month	Monthly	CA 223
Oily rags and absorbents	Spill cleanup / maintenance	CA Hazardous (D001)	~100–400 lbs/month	Weekly/Monthly	D001, CA 222
Used fuel filters	Equipment maintenance	CA Hazardous (D001/D018)	~50–150 units/month	Monthly	D001
Solvent-based paint waste	Building painting / coating	CA Hazardous (F003/F005 or D001)	~50–200 gal/month during painting phase	Periodic (painting phases)	F003, F005, D001
Concrete washout residue	Civil and structural concrete	Potentially D002 (pH ≥ 12.5); test required	Several thousand gallons over construction	Ongoing during concrete phases	D002 if characteristic
Contaminated soil (REC encounter)	Phase I ESA RECs — excavation	Characterize per 22 CCR §66262.11	Unknown; could range from none to several hundred tons	Episodic	subject to site characterization (see Section 3.2)
Empty hazardous material containers	Paint, solvent, adhesive, chemical drums	CA Hazardous if not triple-rinsed	~200–500 containers/year	Ongoing	D001/D002 if not rinsed
Valley Fever PPE / biohazard waste	Dust control, worker protection	Not RCRA hazardous; Cal/OSHA regulated	Small quantities	Ongoing during earthwork	N/A — Cal/OSHA managed

Note: All estimates are planning-level only for CEC Appendix B compliance purposes and will be finalized under applicable mitigation measures and permit requirements. Final quantities must be based on actual construction methods and contractor data. Monthly volumes vary by construction phase — earthwork, structural, mechanical, and commissioning phases each generate different waste profiles.

Table 4.9-6: Operations Waste Stream Estimates

Waste Stream	Source	Haz / Non-Haz (Title 22)	Est. Annual Volume	Est. Frequency	RCRA Code(s)
Used engine oil - generators	40 generators — oil change at ~500 hr intervals; assume 1–2 changes/generator/year	CA Hazardous — used oil (22 CCR §66279)	~2,000–4,000 gal/year (Cat 3516E crankcase ~50–60 gal; est. 1–2 changes/generator/year based on 500-hr oil change interval and annual test schedule of 50 hr/yr per generator)	Quarterly to semi-annual per unit	CA 223
Used oil filters	40 generators — filter change with each oil change	CA Hazardous (D001)	~80–160 filters/year (2–4 per oil change × 40 units)	Quarterly to semi-annual	D001, CA 222
Used fuel filters	40 generators — periodic fuel filter replacement	CA Hazardous (D001/D018)	~200–400 filters/year	Quarterly	D001
Used hydraulic / gear oil	Mechanical systems, chiller maintenance	CA Hazardous — used oil	~100–500 gal/year	Periodic (maintenance-driven)	CA 223
Oily rags and absorbents	Generator/mechanical maintenance, spill cleanup	CA Hazardous (D001)	~500–2,000 lbs/year	Monthly	D001, CA 222
Spent engine coolant / antifreeze	Generator cooling systems	CA Hazardous (D001/D008)	~100–400 gal/year (5–10 gal/generator × 40, per 2-year cycle)	Every 2 years per unit	CA 224
UPS battery replacement (VRLA)	Battery end-of-life (~5–7 year cycle for VRLA)	CA Universal Waste — intact batteries for recycling; D002/D008 if not recycled	216 racks per replacement cycle (~5–7 yr)	Every 5–7 years	Universal Waste or D002/D008
UPS battery replacement (Li-ion)	Battery end-of-life (~8–10 year cycle for Li-ion)	CA Universal Waste — intact batteries for recycling	216 racks per replacement cycle (~8–10 yr)	Every 8–10 years	Universal Waste (2024 CA program)
Recovered refrigerant	Chiller / HVAC servicing	Not RCRA hazardous — CAA §608 regulated	subject to final chiller design (see Section 3.2)	As needed for servicing	CAA §608

Waste Stream	Source	Haz / Non-Haz (Title 22)	Est. Annual Volume	Est. Frequency	RCRA Code(s)
Used transformer oil / ester fluid	Transformer fluid testing, changeout	CA Hazardous — used oil (22 CCR §66279)	periodic sampling ~50–100 gal/year; subject to final design	Annual sampling; changeout as needed	CA 223
Spent SCR catalyst	Generator aftertreatment — catalyst replacement	CA Hazardous (D011 vanadium — TCLP/STLC required)	~1–2 catalyst modules per generator per 5–7 yr cycle	Every 5–7 years	D011 (if characteristic)
Maintenance solvent waste	Parts cleaning, degreasing	CA Hazardous (F003/F005 — non-halogenated solvents)	~50–200 gal/year depending on maintenance program	Monthly	F003, F005
Water treatment chemical residuals	RO, softening, cooling tower maintenance	Characterize — may be D002 (acid/caustic cleaners)	~100–500 gal/year	Periodic (membrane cleaning cycles)	D002 possible
Cooling tower blowdown	Cooling tower operations	Not CA hazardous at typical concentrations; SIU screening required	~4,200–5,700 GPD est. (assuming 80–90% of 28,500 GPD makeup evaporates; blowdown ~15–20% remainder)	Continuous	Not hazardous — SIU/pretreatment evaluation required
RO reject / brine concentrate	RO/softening skids	Characterize — typically non-hazardous but high TDS	subject to final RO/softening design and water quality characterization (see Section 3.2)	Continuous	subject to site characterization (see Section 3.2)
HVAC condensate	Chiller / CRAH condensate	Typically non-hazardous (clean condensate); AHJ approval required for storm discharge	subject to final engineering (see Section 3.2)	Continuous during cooling season	Non-hazardous if clean

Note: Estimates are planning-level values derived from equipment counts, industry benchmarks, and Project data. Final waste generation quantities must be tracked and reported per RCRA/Title 22 generator requirements. Cooling tower blowdown volume estimate is derived from CSD Will Serve Letter makeup water figure (~28,500 GPD) with 80–90% evaporative loss assumption standard for cooling tower operations.

Notably none of the above materials listed in the above tables meet the definition of “Acutely hazardous materials and wastes.” In respect to hazardous materials and waste, the Project would be required to create and implement a HMBP pursuant to MM 4.9-1 A Hazardous Materials Business Plan (HMBP) which must be submitted to the local Certified Unified Program Agency (CUPA) which is the Kern County Public Health Services Department/Environmental Health Division. The Project would also be required to implement MM 4.9-2 which include mitigation measures relating to fire safety and emergency response and MM 4.9-6 providing for a Cal/OSHA-compliant Operations Health and Safety Program. Thus, impacts to existing or proposed schools arising from handling hazardous or acutely hazardous materials, substances, or waste would be managed by a comprehensive safety system and related risks would be minimized.

Mitigation Measures: Implementation of MM 4.9-1, MM 4.9-2, and MM 4.9-6 would be required.

Level of Significance: With the implementation of the stated mitigation measures impacts would be *less than significant*.

Impact 4.9-4: Would the Project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

Based on the DTSC EnviroStor database, the closest major Cortese List sites proximate to the Project Site are located at the Naval Air Weapons Station (NAWS) China Lake located in Ridgecrest, California which is approximately 8 miles east of the Project site. Several hazardous substance release sites and environmental cleanup projects are listed on the NAWS base.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less than significant.

Impact 4.9-5: For a Project located within the adopted Kern County Airport Land Use Compatibility Plan, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area.

The Project site is located within Zone C of the Inyokern Airport Influence Area as defined in the Kern County Airport Land Use Compatibility Plan (ALUCP). The Project does not include any residential uses and would not introduce permanent residents to the Project site. All Project facilities — including data center buildings, ancillary structures, rooftop and carport solar PV, and battery energy storage systems (BESS) — would be sited and designed in compliance with ALUCP height restrictions and compatibility criteria applicable to Zone C, including compliance with FAA notification requirements for structures exceeding 50 feet within 75 miles of the R-2508 Complex. The Project would not generate aircraft noise and would not expose people to airport-related safety hazards beyond what is already present. The Project would also comply with applicable County zoning requirements. With the implementation of MM 4.9-10 impacts would be less than significant.

Mitigation Measures: Implementation of MM 4.9-10 would be required.

Level of Significance: With the implementation of the stated mitigation, impacts would be *less than significant*.

Impact 4.9-6: For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area.

There are no private airstrips within the vicinity of the Project site. The nearest airport is the Inyokern Airport (a public-use facility), located approximately 0.30 miles west of the Project site. No private airstrips are mapped within the Project area or within a radius that would affect the Project. Therefore, this threshold is not applicable and no safety hazard to people residing or working in the Project area would result from a private airstrip.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less than significant.

Impact 4.9-7: Would the Project impair implementation of, or physically interferes with, an adopted emergency response plan or emergency evacuation plan.

Fire Protection and Emergency Response

The planning-level fire protection concept includes VESDA, clean-agent suppression in critical areas, pre-action systems in mechanical/electrical areas, wet-pipe systems in office/support areas, on-site fire-water storage, pumps, hydrants, and backflow prevention. The Inyokern CSD-confirmed fire flow requirement (3,000 GPM at 20 psi residual for 4 hours) establishes a total fire flow demand of 720,000 gallons, which must be addressed through on-site storage, system design, or a combination per final fire protection engineering and Kern County Fire Marshal approval.

Table 4.9-8: Fire Protection and Emergency Response

Emergency Response Topic	Summary
Primary site access	SR-178 / West Inyokern Road
Secondary emergency access	Brown Road
Nearest fire response station	Kern County Fire Station 83
Nearest emergency room	Ridgecrest Regional Hospital
Conservative receptor — school	Inyokern Elementary School ~0.8 miles SW
Conservative receptor — senior	Inyokern Senior Center ~0.8 miles SW
CUPA jurisdiction	Kern County Environmental Health Services Division
APCD jurisdiction	Eastern Kern Air Pollution Control District (EKAPCD)
Water / sewer utility	Inyokern Community Services District (CSD)
Fire flow requirement (CSD)	3,000 GPM @ 20 psi residual, 4 hr minimum (720,000 gal total fire demand)
Fire code authority	Kern County Fire Marshal

Emergency Response Topic	Summary
Pre-application meeting	Strongly recommended with Kern County Fire before permit submittal for facility this scale

As discussed in the *Regulatory Setting* element of this section, the Hazardous Materials Release Response Plan and Inventory Act of 1985, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. A Hazardous Materials Business Plan (HMBP) must be submitted to the local Certified Unified Program Agency (CUPA) which is the Kern County Public Health Services Department/Environmental Health Division. The Project would implement MM 4.9-1 by preparing a HMBP in addition to MM 4.9-2 which include mitigation measure relating to fire safety and emergency response and MM 4.9-6 providing for a Cal/OSHA-compliant Operations Health and Safety Program.

Mitigation Measures: Implementation of MM 4.9-1, MM 4.9-2, and MM 4.9-6 would be required.

Level of Significance: With the implementation of the stated mitigation measures impacts would be *less than significant*.

Impact 4.9-8: Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

As discussed in Impact 4.9-2, the Project Site is not located within an SRA or VHFHSZ and is mapped within an LRA non-VHFHSZ area. The wildfire hazard mapping prepared for the Project identifies the Site as flat desert floor with sparse desert scrub and a low wildfire risk. The Project Site is relatively flat, eliminating slope as a contributing factor to fire spread. Prevailing winds could influence the direction of a regional fire; however, limited vegetation on and around the Project site reduces the potential for a large, wind-driven wildfire originating at the site. Although no Community Wildfire Protection Plan (CWPP) has been adopted for the Indian Wells Valley or Inyokern area, the Project is not expected to substantially impair emergency response or evacuation. Construction activities would be managed to maintain emergency access on surrounding roadways, including SR-178 and US-395, and site access and internal circulation would be designed to meet KCFD and CFC requirements for emergency vehicle access. The Project's internal circulation and access design would be coordinated with KCFD to confirm compatibility with emergency response operations.

The most likely indirect contributions by the Project to a significant risk of loss, injury, or death involving wildfires involves hazardous material and waste discharges that cause or contribute to wildland fire during use, disposal, or transport and fire related to transmission lines. The Project's HMBP required by MM 4.9-1, its fire safety and emergency response commitments under MM 4.9-2, Cal/OSHA-compliant operations health and safety program required by MM 4.9-6, and approvals relating to fire hazard mitigation and plans required by MM 4.9-9, when combined would result in a low likelihood of indirect wildland fire impacts.

Mitigation Measures: Implementation of MM 4.9-1, MM 4.9-2, MM 4.9-6, and MM 4.9-9 would be required.

Level of Significance: With the implementation of the stated mitigation measures impacts would be *less than significant*.

Table 4.9-B Hazards Technical Area Summary

Hazard Type	Primary Pathway	Underlying Technical Source	Control / Mitigation	Finding
Hazardous Materials Handling and Storage	600,000 gallons diesel (6 x UL-2085 ASTs); diesel exhaust fluid; cooling chemicals	Phase I ESA (Appendix J.1); Section 4.9.5; HMBP per HSC Chapter 6.95	HMBP required prior to operations; secondary containment; SPCC plan; Title 22 CCR inventory	Less than significant with MM 4.9-1
Spill Prevention and Contaminated Sites	Diesel fuel transfer and storage; potential soil/groundwater contamination from releases	Phase I ESA (Appendix J.1); SPCC Plan (40 CFR Part 112); Section 4.9.3	SPCC Plan required; secondary containment at all ASTs and transfer points; site not on Cortese List	Less than significant with MM 4.9-1
Emergency Response and Evacuation	Hazmat storage, generator operation, and construction activities near SR-178	Section 4.9.5(E); Fire Safety Plan; MM 4.9-2	Fire Safety Plan and Emergency Response Coordination Plan required prior to construction; KCFD coordination	Less than significant with MM 4.9-2
Airport Land Use Compatibility (ALUCP)	Project within Inyokern Airport ALUCP Zone C	Kern County ALUCP; Section 4.9.3; FAA compliance documentation	Complies with ALUCP zone standards; glare controls per MM 4.9-3; All structures <35 ft AGL; no FAA Form 7460-1 required per MM 4.16-4	Less than significant with MM 4.9-3
BESS (BESS) Fire and Thermal Runaway Risk	UPS battery system (54 units, 2.5 MVA/15-min); future BESS installations if added	Section 4.9.3; California Fire Code Title 24 Part 9; NFPA 855; Section 4.9.5(G)	BESS installations require Fire Safety Plan, suppression systems, and CAL FIRE/KCFD coordination per MM 4.9-2	Less than significant with MM 4.9-2
Wildland-Urban Interface / Wildfire	Adjacent desert scrub; 600,000-gallon diesel on-site; ember intrusion risk	Section 4.9.3; CAL FIRE FHSZ mapping (2022); Wildfire Assessment (Appendix D.2)	Site in LRA with moderate FHSZ per CAL FIRE (2022); defensible space and KCFD access compliance required	Less than significant with MM 4.9-2

4.9.4 Mitigation Measures

- MM 4.9-1 Hazardous Materials Business Plan (HMBP). Prior to the commencement of operations, the Project applicant shall prepare and submit a Hazardous Materials Business Plan (HMBP) to the Kern County Environmental Health Services Division (CUPA) in accordance with the California Health and Safety Code Chapter 6.95 (Sections 25500–25543.3). The HMBP shall identify all hazardous materials and wastes that would be stored or handled at the Project site in quantities at or above applicable thresholds, including diesel fuel, battery electrolyte, refrigerants, transformer fluids, lubricants, and cleaning agents. The HMBP shall include: (1) a chemical inventory with Safety Data Sheets (SDS); (2) site maps identifying storage locations, emergency response equipment, and evacuation routes; (3) emergency response procedures coordinated with Kern County Fire Station 83; and (4) employee training requirements. The HMBP shall be updated annually and made available to emergency responders. Implementation shall be verified by the CUPA prior to facility operations.
- MM 4.9-2 Fire Safety Plan and Emergency Response Coordination. Prior to the commencement of construction, the Project applicant shall prepare a Fire Safety Plan (FSP) in coordination with the Kern County Fire Department (KCFD). The FSP shall be consistent with the California Fire Code, NFPA 30 (Flammable and Combustible Liquids Code), and NFPA 855 (Standard for the Installation of Stationary Energy Storage Systems), and shall address: (1) fire prevention measures for the diesel fuel Aboveground Storage Tanks (ASTs), including secondary containment design and spill prevention; (2) thermal runaway prevention and suppression requirements for the Battery Energy Storage System (BESS) consistent with NFPA 855; (3) defensible space and ember-management clearance requirements around fuel storage areas; (4) pre-incident planning and coordination with Kern County Fire Station 83, including facility-specific emergency contacts and site access routes; and (5) fire apparatus access road compliance with California Fire Code Chapter 5. The FSP shall be submitted to KCFD for review and approval prior to construction and shall be updated prior to the commencement of operations. Annual drills and inspections shall be conducted in accordance with KCFD requirements.
- MM 4.9-3 Hazardous Materials Inventory Management Plan. Prior to construction and as a condition of the County’s approval of the Project, the Applicant will submit the following to the County and any other regulatory agency having jurisdiction:
- (a) Hazardous Materials Inventory that includes:
- Transfer operations secondary containment at transfer points sized for the maximum single tanker compartment. Generator Exhaust Aftertreatment (DEF / SCR);
 - Final on-site DEF storage specifications and a HMBP inventory sizing based on documented final dosing rate confirmed with a SCR vendor;

- Final engineering specifications of transformer fluids that selects less-flammable fluid type (FR3 natural ester, synthetic ester, or silicone-based); and
- Documented PCB-free per TSCA manufacturer certifications for all transformers.

(b) Screening per CalARP / RM – Cal. H&S Code 25531; CCR Chapter 4.5. Screening is required for all process chemicals against CalARP Tables 1–3 threshold quantities. Although the current Project Description does not identify any CalARP-listed substance above its TQ, a final confirmation is required when water treatment chemistry (sulfuric acid TQ = 1,000 lbs; ammonia TQ = 500 lbs if used) is specified. A documented screening analysis — even a negative finding — must be submitted to the Kern County CUPA prior to operations.

MM 4.9-4 Inyokern CSD Permitting - Wastewater Characterization Report. As a condition of the District's permitting the Applicant will submit the following to the District 30 days before construction for final approval:

- (a) Pretreatment data covering fluoride, lithium, and PFAS in respect to the Project's BESS and UPS systems;
- (b) Data relating to battery chemistry including material safety data for the specific battery modules selected and evaluation of potential contributions to floor drain and condensate systems;
- (c) RO Reject and Process Wastewater plans and specifications including recovery ratio, evaluation of source water quality, and identification of risks of elevated concentrations of calcium, magnesium, silica, and trace metals.
- (d) Certifications for BESS and UPS battery systems pursuant to NFPA 855 (2026 edition), California Fire Code Chapter 12, and Kern County Fire ESS guidance.
- (e) Final chemistry data relating to the Project's Cooling Systems — Refrigerants and Glycol;
- (f) Cooling Tower Blowdown — Pretreatment and Chemical Hazards Study that evaluates Cooling Tower Blowdown including concentrations of conductivity, total dissolved solids, corrosion inhibitors, and biocides pursuant to the pretreatment evaluation required under 40 C.F.R. Part 403 and conductivity controllers, side-stream filtration, and drift eliminators that will operate a minimum of 5.0 cycles of concentration.

MM 4.9-5 Inyokern CSD Permitting – Conditions of Service. As a condition of the District's execution of a Water Service Agreement, the Applicant will submit the following to the District for final approval:

- (a) Water Efficiency Plan that includes certification and data relating to California Title 24 water efficiency compliance, a minimum 5.0 cycles of concentration for cooling towers with conductivity controllers and side-stream filtration;
- (b) building permit applications and issued building permits;
- (c) water audit within 12 months of initial occupancy;

- (d) plans and specifications for drift eliminators relating to cooling tower drift from the adiabatic tower assist component as required under ASHRAE 188 and the California Health and Safety Code;
 - (e) Fire Protection and Emergency Response Plan that includes plans and specifications for on-site storage, system design, or a combination per final fire protection engineering and Kern County Fire Marshal approval;
 - (f) Plans and specification of Fire Suppression Systems that comply with the District's on-site fire water storage fire flow requirement of 3,000 GPM at 20 psi residual for 4 hours minimum (720,000 gallons of fire flow demand and clean-agent suppression media volumes as specified in a final fire protection design by room, per final fire protection engineering and Kern County Fire Marshal approval;
 - (g) If required, a SIU permit including self-monitoring, reporting, and discharge notification procedures. If SIU status is determined, the Applicant would be subject to categorical or local pretreatment limits, self-monitoring, and annual reporting. HVAC condensate discharge to storm drain requires AHJ approval as 'clean condensate'; discharge to sewer requires CSD approval. RO reject streams require separate characterization and permitted disposal pathway;
 - (h) If the Wastewater Characterization Report finds that PFAS are confirmed in the waste stream, plans and specification for pretreatment may include activated carbon filtration or reverse osmosis, if PFAS are not removed by conventional biological POTW treatment; and
 - (i) If RO reject data do not meet the District's standards a separate disposal plan (evaporation pond, hauled disposal, or deep well injection) may be required.
- MM 4.9-6 Operations Health and Safety Program (OHSP). Prior to construction and as a condition of the County's approval of the Project, the Applicant will submit the following to the County and any other regulatory agency having jurisdiction:

- (a) Hazard Communication Program (HazCom) per Cal/OSHA Title 8 §5194 — SDS binder and chemical inventory for all operational chemicals;
- (b) Hazardous Waste Management Plan — accumulation area management, manifest procedures, DTSC annual reporting per LQG requirements;
- (c) SPCC Plan Implementation — oil-handling personnel training (annual), designated spill prevention coordinator, inspection schedules for all ASTs and oil-filled equipment;
- (d) Emergency Response Plan — facility-specific ERP coordinated with HMBP, SPCC, and Kern County Fire Station 83 pre-incident planning; chemical-specific response procedures for diesel spill, battery thermal event, refrigerant release, and transformer fluid release;
- (e) Confined Space Entry Program — Cal/OSHA Title 8 §5157 permit-required confined space procedures for 100,000-gallon AST maintenance access, electrical manholes, and mechanical pits;
- (f) Lockout/Tagout (LOTO) Program — Cal/OSHA Title 8 §3314 energy control procedures for generator and electrical maintenance;
- (g) Permissible Exposure Limits (PEL) Management — monitoring and control for diesel exhaust (ACGIH TLV for diesel particulate: 0.02 mg/m3), refrigerant

- exposures (ASHRAE 15 sensor requirements), and battery off-gas (hydrogen for VRLA; HF for Li-ion thermal events);
- (h) HAZWOPER Training — 40-hour initial training plus annual 8-hour refresher per Cal/OSHA Title 8 §5192 for employees who may respond to hazardous waste spills or emergency releases;
- (i) Cooling Tower Water Management Plan — Legionella control per ASHRAE 188 and California Health and Safety Code; and
- (j) SIU Compliance Program — if SIU permit is required by Inyokern CSD, including self-monitoring, reporting, and discharge notification procedures.
- MM 4.9-7 RCRA / DTSC / Title 22 Compliance. Large Quantity Generator (LQG) of California hazardous waste. Note that used oil from 40 generators constitutes a California hazardous waste (22 CCR §66279) and is the primary driver of LQG classification. Detailed RCRA/CERCLA/DTSC material cross-walk is provided in Section 4.9.2. Prior to construction and as a condition of the County's approval of the Project, the Applicant will submit the Compliance Plan including the following elements to the County and any other regulatory agency having jurisdiction:
- (a) EPA and DTSC Hazardous Waste Generator ID numbers before first generation;
- (b) Identification of a designated accumulation area subject to weekly inspections;
- (c) 90-day accumulation limit;
- (d) a written contingency plan provided to Kern County Fire Station 83 and Kern County Sheriff;
- (e) annual DTSC hazardous waste generation report;
- (f) and manifest submission to DTSC within 30 days of each shipment.
- MM 4.9-8 California Highway Patrol. The Applicant will obtain for itself and for all transportation vendors, a valid Hazardous Materials Transportation License, issued by the CHP, as required by California Vehicle Code Section 3200.5 for transportation of either:
- Hazardous materials shipments for which the display of placards is required by State regulations; or
 - Hazardous materials shipments of more than 500 pounds, which would require placards if shipping greater amounts in the same manner.
- MM 4.9-9 Fire Hazards. Prior to construction and as a condition of the County's approval of the Project, the Applicant will submit the following to the County:
- (a) Kern County Fire Marshal approval for fire protection systems, hazardous materials storage, and building permits;
- (b) Kern County Fire Marshal approval for the Project's Solar PV system pursuant to Kern County Fire Prevention Standard No. 503-507 Solar Panels;
- (c) Kern County Building and Planning Department entitlement and building permit approvals including H-occupancy classification for fuel storage areas and WUI code compliance based on final FHSZ mapping;

- (d) Plans and specifications for Power Line Hazard Reduction pursuant to Public Resources Code (PRC) Section 4292;
- (e) Plans and specification demonstrating compliance with the Transmission Power Line Clearance Requirement under PRC Section 4293;
- (f) Plans and specifications demonstrating compliance with the 14 CCR 1254 - Minimum Firebreak Clearance Provisions; and
- (g) Plans and specifications compliant with the California Public Utilities Commission General Order 95: Rules for Overhead Electric Line Construction, including but not limited to, Rule 35 and Rule 31.2.

MM 4.9-10 Airport Land Use Compatibility and FAA Compliance. Prior to the commencement of construction, the Project applicant shall: (1) confirm with the Federal Aviation Administration (FAA) that no filing of FAA Form 7460-1 is required based on current design (all Project structures are less than 35 feet AGL, below the 200-foot notification threshold under 14 CFR Part 77.9). If any structure height increases above 35 feet AGL during final design, the Applicant shall file FAA Form 7460-1 pursuant to 14 CFR Part 77 for affected structures and obtain a FAA Determination of No Hazard to Air Navigation prior to construction of such structures; and (2) implement any required obstruction lighting, marking, or glare-reduction measures (including anti-reflective panel coatings or other measures to minimize solar glare toward aircraft flight paths) as specified by the FAA determination. All required FAA and Kern County Airport Land Use Compatibility Plan (ALUCP) conditions of approval shall be incorporated into construction documents and verified by the Kern County Planning and Natural Resources Department prior to issuance of building permits.

Table 4.9-A CEC SPPE Appendix B Compliance Cross-Reference — Hazardous Materials Handling (g)(10)

Ref.	Appendix Requirement	Section / Table	Status
(A) Environmental Setting and Inventory Requirements			
(A)	List of all hazardous or acutely hazardous materials used or stored on-site, per Title 22 CCR § 66261.20, with toxicity discussion	Section 4.9.1.3; Tables 4.9-2, 4.9-3	✓ Addressed
(B)	Map at 1:24,000 depicting schools, hospitals, day-care, and long-term health care within affected area	Section 4.9.1.1; Figure 4.9-1 (Appendix N.2)	✓ Addressed

(C)	Discussion of storage and handling system for each hazardous material	Sections 4.9.1.3, 4.9.5.1	✓ Addressed
(D)	Protocol for modeling accidental release consequences with off-site impacts; model, inputs, met conditions	Section 4.9.5.2	✓ Addressed
(E)	Discussion of whether a Risk Management Plan (H&S Code § 25531) is required and likely requirements	Section 4.9.5.3	✓ Addressed
(F)	Measures proposed to reduce the risk of hazardous material release	Section 4.9.3; MM 4.9-1, MM 4.9-2	✓ Addressed
(G)	Discussion of fire and explosion risks associated with the Project	Sections 4.9.1.2, 4.9.3, 4.9.5.4; MM 4.9-2	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(10). All criteria addressed in this chapter; full technical disclosure in Phase I Environmental Site Assessment (Appendix J.1) and Hazards and Hazardous Materials Analysis (filed as supporting exhibits to this Application)

4.9.5 CEC SPPE Appendix B — Additional Hazardous Materials Disclosure Requirements

This section provides the additional hazardous materials disclosure information required by CEC SPPE Appendix B, Section (g)(10). This information supplements the CEQA impact analysis provided in Sections 4.9.1 through 4.9.4 above. Appendix B, Section (g)(10), requires: (A) a list of hazardous materials with toxicity discussion; (B) a sensitive receptor map; (C) a discussion of storage and handling systems; (D) an accidental release modeling protocol; (E) a risk management plan discussion; (F) release risk reduction measures; and (G) a fire and explosion risk discussion. Each of these requirements is addressed below.

Hazardous Materials Inventory and Toxicity – Appendix B §(g)(10)(A)

A complete inventory of hazardous and acutely hazardous materials used or stored on-site, consistent with Title 22, California Code of Regulations, § 66261.20 et seq., is provided in Section 4.9.1.3 (Tables 4.9-2 and 4.9-3 will be completed following final engineering and are provided as conceptual design-phase placeholders) of this chapter. Key materials include: diesel fuel (600,000 gallons in six UL-2085 ASTs); diesel exhaust fluid (DEF/AdBlue); generator engine oil and coolant; refrigerants (HFCs — per final chiller design); transformer dielectric fluid (less-

flammable ester or mineral oil); fire suppression clean agent (HFC-227ea, FK-5-1-12, or CO₂ per final design); and water treatment chemicals (biocides, corrosion inhibitors, scale inhibitors). The toxicity profile for each material class, including RCRA characteristic and California hazardous waste codes, generation volumes, and disposal pathways, is set forth in Section 4.9.1.3 and the Hazards and Hazardous Materials Analysis (Appendix J.1). The Project would be required to implement MM 4.9-1 and MM 4.9-3.

Accidental Release Modeling Protocol – Appendix B (g)(10)(D)

The primary accidental release scenarios for the Project are: (1) diesel fuel release from an AST or tanker transfer event; (2) battery thermal runaway event with release of electrolyte or off-gas; and (3) refrigerant release from the chiller plant. The modeling protocol for any accidental release requiring off-site consequence analysis would use EPA's RMP*Comp or CAMEO/ALOHA model (or equivalent CalARP-approved screening tool) as follows: model input assumptions include worst-case meteorological conditions (Class F stability, 1.5 m/s wind speed, 25th percentile ambient temperature), instantaneous release from the largest single container (100,000-gallon AST for diesel; largest single battery string for BESS; single chiller refrigerant charge), and ground-level release with no passive mitigation. Because the Project is currently in the conceptual design phase, final equipment quantities, tank configurations, refrigerant system sizing, and BESS chemistry have not been fully determined. Accordingly, full quantitative off-site consequence modeling cannot be completed at this stage. The complete accidental release modeling analysis, including off-site endpoint distances and receptor exposure estimates for each scenario, would be provided following the completion of final Project engineering and prior to filing of the complete Application. The protocol described above would govern the modeling methodology when that analysis is performed. The Project's SPCC Plan, HMBP, and NFPA 855 BESS safety analysis provide the primary risk reduction framework, as described in Sections 4.9.3 and 4.9.4. The Project would be required to implement MM 4.9-1 and MM 4.9-3.

Risk Management Plan Applicability – Appendix B (G)(10)(E)

A Risk Management Plan (RMP) under California Health and Safety Code § 25531 et seq. (CalARP) is required when a regulated substance is present in a process above its threshold quantity (TQ). Diesel fuel is not a listed CalARP regulated substance. The primary RMP trigger at the RBIDC Project would be any refrigerant classified as a regulated flammable substance present in a process above its TQ (e.g., propane or ammonia — not anticipated for this design). HFC refrigerants (R-134a, R-410A, R-513A) are not listed CalARP regulated substances. Based on the current design record (HFC chillers; no ammonia or listed flammable refrigerant), a CalARP RMP is not anticipated to be required. However, this determination is subject to confirmation of final refrigerant selection and final equipment sizing prior to the commencement of construction. If the refrigerant selection changes to a CalARP-listed substance above the applicable TQ, an RMP would be prepared and filed with the Kern County Environmental Health Services Division (CUPA) in accordance with 19 CCR § 2735.3. The Project would be required to implement MM 4.9-1, MM 4.9-2, MM 4.9-3, and MM 4.9-6.

Fire and Explosion Risk – Appendix B (g)(10)(G)

The primary fire and explosion risks at the RBIDC Project are as follows. (1) Diesel fuel fire: The 600,000-gallon on-site diesel inventory is stored in six UL-2085 double-wall ASTs. The flash point of diesel fuel (ULSD) is approximately 52°C (125°F), classifying it as a Class II combustible liquid

under NFPA 30. An AST fire would be controlled by secondary containment berms (PE-certified SPCC design), fixed foam suppression (if required by Kern County Fire Marshal), and the 720,000-gallon on-site fire water supply. The primary explosion risk from diesel is confined to the vapor space above the fuel surface during tank loading operations and is mitigated by tank design, vent management, and no-ignition-source zones per NFPA 30. (2) BESS thermal runaway: The battery energy storage system presents a thermal runaway risk, in which exothermic chemical reactions can propagate within and between battery modules. NFPA 855 (2026 edition) compliance requirements include module-level thermal management, gas detection and ventilation, deflagration venting, and fire suppression system design coordinated with Kern County Fire. The BESS fire and explosion risk analysis is addressed in the BESS safety data package and coordinated with the fire protection engineer and Kern County Fire prior to permit submittal. (3) Generator fuel handling: Transfer of diesel from delivery tankers presents a secondary ignition risk at the tanker transfer point, mitigated by bonding and grounding, spill containment, and prohibiting open flame during transfer. Operational protocols per NFPA 30 Chapter 9 apply. The fire and explosion risk discussion is further addressed in Sections 4.9.1.2 and 4.9.3 of this chapter. The Project would be required to implement MM 4.9-1, MM 4.9-2, MM 4.9-3, MM 4.9-5, MM 4.9-6, and MM 4.9-9.

4.9.6 Cumulative Setting, Impacts and Mitigation Measures

As described in the *Project Description*, multiple projects, are proposed throughout Kern County as shown in Table N.3, *Cumulative Projects List*.

The geographic scope of impacts associated with hazards hazardous materials generally encompasses the Project site and a 0.25-mile-radius area around the Project sites. A 0.25-mile-radius area allows for a conservative cumulative analysis that ensures that all potential cumulative impacts will be assessed. Similar to other potential impacts, such as those related to geology and soils, risks related to hazards and hazardous materials are typically localized in nature since they tend to be related to onsite existing hazardous conditions and/or hazards caused by the Project's construction or operation. A geographic scope of a 0.25-mile-radius area also coincides with the distance used to determine whether hazardous emissions or materials would have a significant impact upon an existing or proposed school, as discussed above. Although the Inyokern Elementary School and senior center is approximately ~0.8 miles from the Project site, compliance with Mitigation Measures MM 4.9-1 (preparation of a HMBP), MM 4.9-2, and MM 4.9-3, would avoid hazardous material-related impacts from occurring at the school, senior center and nearby residential receptors.

The cumulative setting for hazards and hazardous materials is based on the following components:

The cumulative setting for hazards and hazardous materials in the Inyokern area is characterized by the Indian Wells Valley desert floor, existing industrial, agricultural, and military land uses (including the China Lake Naval Air Weapons Station approximately 8 miles east of the Project site), existing petroleum operations and related infrastructure in the region, and the presence of the Inyokern Airport. The primary cumulative hazard concerns in this setting relate to hazardous materials storage and transport associated with energy and industrial facilities, wildfire risk in the high desert interface, and coordination with military airspace operations.

Wildfire: The Project is located within the regional LRA Non-VHFHSZ area of the Indian Wells Valley desert floor. The absence of any VHFHSZ within 10 miles of the Project Site, and the regionally low wildfire hazard conditions documented in the wildfire hazard mapping prepared for the Project, are consistent with the approach described in CEQA Guidelines Section 15130. The Project, in combination with other existing and planned development in the Inyokern area, may contribute incrementally to the number of people and structures present in the region. However, the Project is located in an LRA and is not in an SRA or VHFHSZ, and it incorporates fire-safe site planning and operational features consistent with applicable codes and KCFD requirements. Based on those factors, the Project is not expected to make a cumulatively considerable contribution to significant hazards in the Project vicinity.

Impacts regarding the handling, use, and/or storage of hazardous materials would be Project specific and would not cumulatively contribute to impacts. An accident involving a hazardous material release during Project construction or operation through upset or accident conditions including site grading and the use and transport of petroleum-based lubricants, solvents, fuels, batteries, herbicides, and pesticides to and from the Project site would be location specific.

Conformance with existing State and County regulations, as well as Project safety design features and the implementation of Mitigation Measures MM 4.9-1 through MM 4.9-9 identified above would further reduce cumulative impacts. In addition, implementation of appropriate safety measures during construction of the Project, as well as other cumulative projects, would reduce the impact to a level that would not contribute to cumulative effects. Given the minimal risks of hazards at the Project site, cumulative impacts are unlikely to occur. Therefore, impacts would not be cumulatively significant.

Hazardous materials to be used during decommissioning and removal activities are of low toxicity and would consist of fuels, oils, and lubricants. Because these materials are required for operation of construction vehicles and equipment, BMPs would be implemented to reduce the potential for or exposure to accidental spills or fires involving the use of hazardous materials. Impacts from minor spills or drips would be avoided by thoroughly cleaning up minor spills as soon as they occur. While foreseeable projects have the potential to cause similar impacts, it is assumed these projects would also implement similar BMPs. Conformance with existing State and County regulations, as well as implementation of Mitigation Measures MM 4.9-1 through MM 4.9-9, would further reduce the potential for cumulative impacts. In addition, implementation of appropriate safety measures during construction of the Project, as well as any other cumulative Project, would reduce the impact to a level that would not contribute to cumulative effects. Therefore, impacts related to the use of hazardous materials would not be cumulatively significant.

The Project site is located within Zone C of the Inyokern Airport Land Use Plan influence area. However, the Project would not introduce permanent residents on the Project site and only temporary employees would be at the Project site for routine maintenance. The proposed Project would be in compliance with County zoning requirements and FAA regulations per Mitigation Measure MM 4.9-10, including design measures related to glare, as required. Therefore, impacts related to hazards in an airport land use plan influence area would not be cumulatively significant.

Mitigation Measures: Other than the Project-specific mitigation measures discussed above, no additional would be required.

Level of Significance: With the implementation of the stated mitigation measures cumulative impacts would be *less than significant*.

4.10 HYDROLOGY AND WATER QUALITY

Introduction

This section of the Application describes the hydrological environmental and regulatory settings, addresses potential impacts of the Project on hydrology and water quality, and discusses mitigation measures to reduce impacts, where applicable.

The information in this section is based on the Project Description, the Hydrology Study (Appendix E.1), the Water Supply Assessment (Appendix E.3), the Hazards and Hazardous Waste Assessment (Appendix J.2), the Phase I Environmental Assessment (Appendix J.1), the Soil and Geology Report (Appendix K.1), the Groundwater Sustainability Plan for the Indian Wells Valley Groundwater Basin (IWVGA, 2020), and other published sources.

CEC SPPE Appendix B, Section (g)(14) requirements for Water Resources are addressed in Section 4.10.5 of this chapter.

CEC SPPE Appendix B — Section (g)(14) Applicability

Appendix B, Section (g)(14) — Water Resources requires the applicant to provide the following information regarding water supply, water quality, groundwater, and stormwater management:

(A) A description of the regional hydrologic setting; existing surface and groundwater resources; applicable water quality control plans, groundwater sustainability plans, and beneficial uses; and existing water supply sources, treatment, and distribution infrastructure.

(B) An assessment of Project water demand during construction and operations; potential impacts on groundwater levels, quality, and sustainable yield; stormwater management and drainage; and compliance with applicable water quality control plans and groundwater sustainability plans.

(C) Physical and chemical characterization of water supply sources; water mass balance and heat balance diagrams for average and maximum flow conditions.

(E) A quantitative groundwater drawdown analysis and a formal evaluation of alternative water supply sources and cooling technologies.

All Section (g)(14) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.10.1–4.10.4. The Appendix B supplemental disclosure is provided in Section 4.10.5. A compliance cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.10-A, immediately preceding Section 4.10.4.

4.10.1 Environmental Settings

Regional Setting

The Project is located in the northeastern portion of Kern County, California on the western side of the Indian Wells Valley in Inyokern, California, a census designated place. The Project Site is 8 miles west of Ridgecrest, CA near the intersection of United States Highway 395 and CA State Route 178. The Project Site is located within the Inyokern, CA United States Geologic Survey (USGS) 7.5-minute topographical quadrangle, and within Section 29 Township 26 South Range 39 East, San Bernadino Base and Meridian (SBB&M).

Indian Wells-Searles Valleys Hydrologic Unit (HU)

The Project Site is located in the Indian Wells-Searles Valleys Hydrologic Unit (HU) or watershed, which covers approximately 1.3 million acres and includes portions of the counties of Kern, Inyo, and San Bernardino. The Project Site is located within the Kern County portion of the HU, along with multiple unincorporated communities including Inyokern, the City of Ridgecrest, and the China Lake Naval Air Weapons Center. The HU is divided into multiple smaller subwatersheds; its surface waters include Little Dixie Wash and several unnamed drainages. The beneficial uses for the minor surface waters in the Indian Wells HU are municipal and domestic supply, agricultural supply, groundwater recharge, noncontact and contact water recreation, warm freshwater habitat, and wildlife habitat (LRWQCB, 2016).

Indian Wells Valley Groundwater Basin (IWVGB)

In respect to hydrological resources, the Project Site is located in the northern portion of the Mojave Desert in the Indian Wells Valley Groundwater Basin (IWVGB), which is bounded on the east by the Argus Range, on the south by the El Paso Mountains, on the north by a low ridge and the Coso Range, and on the west by the Sierra Nevada Mountain Range. The IWVGB is located within portions of Kern, Inyo, and San Bernardino Counties, with 73 percent of the Basin lands being in Kern County. Surface water flow from the surrounding mountain ranges drains to China Lake, a large dry lake or playa, located in the central northeast part of the Basin. Overdraft conditions in the IWVGB have existed since at least the 1960s (Dutcher and Moyle, 1973, cited in IWVGA, 2020). Annual recharge to the Basin is approximately 7,650 acre-feet per year (AFY) (IWVGA, 2020).

Sustainable Groundwater Management Act of 2014 (SGMA)

SGMA Groundwater Sustainability Plan

The Indian Wells Valley is 100 percent dependent on groundwater and has been designated by the California State Department of Water Resources (DWR) as being in a condition of overdraft and of medium priority for groundwater management based on the criteria established by the passage of the Sustainable Groundwater Management Act of 2014 (SGMA). Being in a condition of overdraft was a term developed by DWR to identify basins where "continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts." Overdraft has serious long-term consequences and

as such, in compliance with the SGMA, the associated groundwater sustainability agency (GSA) is required to submit a Groundwater Sustainability Plan (GSP) by January 31, 2020 to achieve local sustainable management of groundwater resources. The Indian Wells Valley Groundwater Authority (IWVGA) Board of Directors adopted Resolution No. 02-16, Joint Exercise of Powers Agreement creating the Indian Wells Valley Groundwater Authority, on December 8, 2016 to establish the IWVGA as the exclusive GSA for the entirety of the IWVGB and to manage groundwater resources pursuant to SGMA. The IWVGA Board established an eleven-person, voting-member Policy Advisory Committee (PAC) to advise the Board on all policy-related matters of the Board and to develop non-binding proposals on policy matters pertaining to the GSP. In addition, the IWVGA Board also established a Technical Advisory Committee (TAC) for the express purpose of giving interested parties a reasonable opportunity to review and conduct a thorough valuation of each technical element of the GSP prior to its finalization by the Water Resources Manager.

In compliance with SGMA, as set forth in California Water Code Section 10720.1, a GSP was developed that discusses Basin management strategies that will culminate in the absence of undesirable and unsustainable Groundwater conditions in the IWVGB. The GSP recommends management actions and Projects and provides measurable sustainability objectives and milestones that are intended to achieve Basin sustainability while considering the unique geologic and hydrogeologic conditions of the IWVGB. The recommendations in the GSP are designed to provide for long-term sustainable groundwater management in the IWVGB within 20 years of GSP implementation. The GSP was adopted via Resolution 01-20 by the IWVGA Board on January 16, 2020; however, the GSP was subsequently approved by the California Department of Water Resources (DWR) in January 2022.

Indian Wells Valley Groundwater Authority

The IWVGA is the exclusive Groundwater Sustainability Agency for the IWVGB, Bulletin 118 Basin No. 6-054. There are several other existing regional entities with water supply, management, planning, and/or regulatory authority, whose boundaries encompass all or portions of IWVGB. These entities include the Kern County Water Agency (KCWA), the Lahontan Regional Water Quality Control Board (LRWQCB), the Inyo-Mono Integrated Regional Water Management Program (Inyo-Mono IRWMP), and the East Kern County Resource Conservation District (EKCRCD).

Sustainable Yield

DWR states that the "SGMA requires local agencies to develop and implement GSPs that achieve sustainable groundwater management by implementing Projects and management actions intended to ensure the Basin is operated within its sustainable yield by avoiding undesirable results." Consequently, sustainable yield is a crucial and fundamental element for the development of implementation measures of the GSP. As discussed above, the estimated long-term average natural recharge to the IWVGB is 7,650 AFY and therefore, this is considered the Current Sustainable Yield of the Basin.

Beneficial Uses

According to California Water Code Section 10723.2, the IWVGA must "consider the interest of all beneficial uses and users of groundwater..." The groundwater user categories in the IWV currently are: Municipal; Domestic (*de minimis* private well owners and mutuals/co-ops); City/County; NAWS China Lake; Industrial; Large Agriculture; and Small Agriculture.

The IWVGA does not have legal authority to restrict, assess, or regulate production for NAWS China Lake; therefore, NAWS China Lake groundwater production is considered of highest beneficial use. California Water Code Section 106 expressly declares that it is "the established policy of this State that the use of water for domestic purposes is the highest use of water and that the next highest use is for irrigation." Accordingly, aside from NAWS China Lake production and use by SGMA defined *de minimis* pumpers, the highest beneficial use of water in the IWVGB is for domestic purposes including human consumption, cooking, and sanitary uses. In the IWVGB, groundwater pumpers in the domestic category which would provide the highest beneficial use include production by the IWVWD, Inyokern CSD, individual domestic well owners (*de minimis* pumpers), and mutual water companies serving domestic users. These groundwater pumpers can and should implement additional conservation measures; however, the allocations for these pumpers would be continual and annual.

The beneficial uses of other groundwater users, including agricultural and industrial users, will subsequently be evaluated based on water rights priorities. The IWVGA will allow all IWVGB groundwater pumpers the opportunity to provide documentation on historical groundwater production and other pertinent information. Current groundwater production that has existed and has been continuous prior to the establishment of NAWS China Lake will be given a priority over more recent pumping that has occurred since the IWVGB has been documented to be in overdraft conditions, at least since the 1960s. Accordingly, all groundwater users and uses will be equitably considered and prioritized, as required by SGMA.

Interbasin Flow

Previous studies on the IWVGB have primarily considered the IWVGB to be a closed basin with little to no subsurface outflow to Salt Wells Valley. However, the Desert Research Institute (DRI) concluded "the absence of a large accumulation of salinity in Indian Wells Valley suggests that the basin may not be hydrologically closed" and noted that water levels within the Indian Wells Valley "are higher than in Salt Wells Valley, which indicates that interbasin groundwater flow is a possibility given large enough transmissivities." DRI performed a hydraulic analysis of the Salt Wells Valley and concluded that it is possible that currently approximately 50 AFY of the groundwater flow in the Salt Wells Valley originates as underflow from the IWV as distinguished from mountain front recharge from the Argus Range.

In addition, the IWVGB is an inland basin, and as such, is not hydraulically connected to a sea or ocean. The City of Ridgecrest is over 100 miles from both the Pacific Ocean and the Salton Sea. There are no significant interconnected surface water systems that interact with groundwater in the IWVGB. Streams in the valley are typically ephemeral and the majority of recharge occurs as mountain front recharge (IWVGA, 2020).

Overdraft

According to the GSP, the IWVGB is currently in overdraft with a current loss of storage of approximately 25,000 AFY. This significant reduction of groundwater in storage is directly related to the chronic lowering of groundwater levels, water quality degradation, and land subsidence. The Basin is primarily recharged through mountain front inflow, and natural recharge estimates have been reported by the DRI at a rate of 7,650 AFY.

Aquifers

There are two principal aquifer units within the IWVGB. The shallow aquifer contains coarse sediments near the Sierra Nevada with increased interbedded silts and clays towards the center of the Basin associated with the lacustrine and includes China Lake's playa deposits. The best quality of water is at shallow to medium depths in the southwestern part of the valley, closer to the Sierra Nevada. The deeper aquifer is also composed of gravel, sand, silt and clay. It is strongly connected to the shallow aquifer in the west and southwest of the Basin; and is confined in other parts of the Basin. Existing multi-level monitoring wells show semi-confined artesian conditions within the deeper aquifer where it occurs beneath the lacustrine and other fine-grained sediments (IWVGA, 2020).

Local Setting

The land overlying the IWVGB encompasses portions of the Counties of Kern, Inyo, and San Bernardino, with the majority (approximately 73%) being in Kern County. Ridgecrest is the only incorporated community in the Indian Wells Valley and covers an area of approximately 20 square miles with a population of approximately 27,000 people. Unincorporated communities in the Indian Wells Valley include the communities of Inyokern in Kern County and Pearsonville in Inyo County, along with other smaller communities.

Water Supply

The IWVGB serves as the sole supply of potable water for the Indian Wells Valley. Residents of the Indian Wells Valley are served groundwater through private domestic wells, small cooperative groups sharing wells, small mutual water companies, the Inyokern Community Services District (Inyokern CSD), and the Water District. The U.S. Navy produces and distributes groundwater for the on-station water uses at the NAWS China Lake. Searles Valley Minerals Inc. produces groundwater from the IWVGB for use in its mineral recovery and processing operations in the Searles Valley (located east of the IWVGB) and for potable use in the small communities of Trona, Westend, Argus, and Pioneer Point in the Searles Valley.

In addition, a number of farms located in the Indian Wells Valley rely on the IWVGB's water supplies for their agricultural operations, including Meadowbrook Dairy, Mojave Pistachios, Simmons Ranch, Quist Farms, and other smaller farms. The crops grown in the Indian Wells Valley are primarily alfalfa and pistachios.

The local water agencies that currently rely on the IWVGB as a water supply source include the IWVWD and the Inyokern CSD. Though not located within the IWVGB boundaries, the Searles

Domestic Water Company relies on extracted groundwater imported from the IWVGB to its served communities in the Searles Valley (Trona, Westend, Argus, and Pioneer Point). A number of other water agencies have service areas and/or spheres of influence that extend into the IWVGB but have no water supply infrastructure or water supply services in the IWVGB. These agencies include the Antelope Valley – East Kern Water Agency, the Kern County Water Agency, the Mojave Water Agency, and the Rand Communities Water District.

Surface Hydrology and Drainage

The Project Site is relatively flat and exhibits little topographic variation. The Project Site gently slopes from South to North from an approximate elevation of 2430 to 2420 feet above mean sea level (ASML). The surrounding area is relatively flat as well and gently slopes from South to North as depicted in the Inyokern 7.5-minute Topographic Quadrangle. There are no drainage formations on the Project Site itself. Surface runoff on the Project Site occurs as sheet flows and generally follows the contours of the ground surface; although the Project Site is relatively flat. The Project Site is currently undeveloped and contains minimal vegetation and thus most drainage flow originating in the study area infiltrates into the soil in the vicinity of the study area.

FEMA Special Flood Hazard Area

Site hydrology and climatology data were utilized to determine the characteristics of the watershed and thus estimate the quantity of runoff. FEMA data, previous hydrology reports, historical rainfall data, soils reports and maps, topographic maps, and climatologic data were reviewed to determine the characteristics of the watershed.

The Project Site is located within a Zone A FEMA special flood hazard area shown in Figure 4-1 of the Hydrology Study (Appendix E.1). Zone A flood hazard areas are subject to inundation by the 1% annual chance of flood; however, no base flood elevation is determined. The flood water in the Project area is the result of being adjacent to Little Dixie Wash, located south of the Project Site approximately 8,000 ft away.

Soil Types and Erosion

The Project Site is covered by native soils. Surface and near-surface soils consist of silty sand with very low expansion potential (Terracon, 2015b). Silty sands are interbedded with subsurface clay layers (Terracon, 2015a; SEI, 2014). The Project Site is relatively flat with an elevation of approximately 2,420 feet above mean sea level (amsl) (Terracon, 2015b). See Section 4.7, *Geology and Soils*, for more information on soil erosion potential.

CivilD Flood Model

Flood modeling for the Project was conducted using Civil Design Unit Hydrograph Software (CivilD) in accordance with the prescribed method in the Kern County Hydrology Manual. The extent of the watershed analyzed is shown in Figure 4-2 of the Hydrology Study. HEC-RAS was used to model the flood depth and velocities at the Project Site and surrounding area. Surface elevation data from the United States Geological Survey was used. A Manning's "n" value of 0.035 was used for the floodplain in the model accordance with CivilD's guidance. The 100-year, 24-

hour rainfall was distributed over the Project area in addition to modeling the flood volume from Little Dixie Wash.

The local watershed delineated in Figure 4-3 of the Hydrology Study is analyzed through the rainfall distribution added to the model. Existing runoff generally flows North towards a wash near US Highway 395 and N Owens Peak Street, with localized sheet flow across the site. Project grading will maintain the existing offsite flow paths while providing onsite retention to control post-development runoff.

Flow across the Project Site was modeled without infiltration because soil data was unavailable. As a result, the hydraulic model provides conservative estimates. The results indicate that floodwater from Little Dixie Wash does not reach the Project area (see Figure 4-4, Hydrology Study). The maximum water depth and velocity on the site is caused by accumulation and transport from the 100-year, 24-hour rainfall event (see Figure 4-5 and 4-6, Hydrology Study). Within the Project Site, water depth does not exceed 1.0 ft, except in a localized depression in the northwest corner. No development is planned in this area, and the increased depth is due to the depression rather than a watercourse or other hydrologic feature. Therefore, it is recommended to assume a flood depth of 1.0 ft above existing or finished grade to comply with FEMA Floodplain Map Zone A requirements.

Floodplain impacts were evaluated conceptually for early planning purposes. Prior to construction, a final hydraulic model and drainage plan would be completed to demonstrate compliance with Kern County Floodplain Management Ordinance requirements, including maintaining flood conveyance and limiting increases in water surface elevation consistent with the County criteria. Any required floodplain permits and mapping actions would be obtained. A Letter of Map Revision (LOMR) from FEMA would be required prior to commencement of construction to address the Zone A designation. The United States Army Corps of Engineers (USACE) has determined that the watershed associated with the Project is non-jurisdictional; accordingly, a Section 404 permit is not required for the Project. A Section 401 Water Quality Certification from the Lahontan RWQCB would be required as applicable. Under the California Porter-Cologne Water Quality Control Act, discharges to Waters of the State remain subject to state regulation.

Construction activities may temporarily increase sediment generation and alter onsite drainage patterns. These effects will be minimized through the implementation of the SWPPP and BMPS such that offsite discharge and downstream drainage patterns are not adversely affected during construction.

Preliminary flood depths on the site are generally less than 1.0 foot; final modeling will confirm compliance prior to construction.

Climate

The climate of the region is representative of a typical desert climate with hot summers and mild winters. The Project Site is located in the North-Western Mojave Desert and experiences little precipitation. The Mojave desert is not influenced by the ocean due to the coastal range and is located in a broad rain shadow leading to arid conditions year-round. Normally, approximately 90

percent of the precipitation occurs between November and April with an average annual precipitation of approximately 4.17 inches. Average maximum temperature occurs in July at 102.7 degrees Fahrenheit (F) and the average minimum temperature occurs in December at 30.2 degrees F. **Table 4.10-1** (Restating Table 3-1, Hydrology Study) summarizes the monthly climate summary.

**Table 4.10-1 Inyokern, CA Monthly Climate Summary
(Restating Table 3-1, Hydrology Study)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Avg Max Temp (°F)	59.6	64.8	70.3	77.7	87.0	96.7	102.7	101.2	94.2	83.2	69.0	59.7	80.5
Avg Min Temp (°F)	30.8	34.6	38.7	44.3	52.9	60.5	66.2	64.6	58.1	48.2	37.3	30.2	47.2
Avg Total Precip (in.)	0.74	0.95	0.55	0.17	0.07	0.02	0.16	0.22	0.20	0.10	0.38	0.59	4.17

Source: Western Regional Climate Center, 2025

Climatology

Isohyets are precipitation contours that depict rainfall depth for various storm events. The rainfall totals for the 2-year and 100-year return periods for the 6-hour and 24-hour durations of the regional watershed were estimated using National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Volume 6, Version 2 Point Precipitation Frequency Estimates. The rainfall isohyets for the Project watershed are summarized in Table 4.10-2 (Restating Table 3-2, Hydrology Study). Kern County requires the design volume of a storm water retention basin to be based upon the runoff of the 10-year, five-day storm event. The depth of rainfall for the 10-year, five-day storm is 2.66 inches.

**Table 4.10-2 Rainfall Isohyets for Project Watershed
(Restating Table 3-2, Hydrology Study)**

Storm Duration	2-Year Return (in)	100-Year Return (in)
6-Hour	0.602	1.65
24-Hour	1.06	3.00

Source: NOAA Atlas 14

Land Use

The land of the Project Site and adjacent area is mostly native, undisturbed habitat. There are some scattered, low-density residential properties to the South and a small area of commercial, industrial, and residential properties to the West on the west side of Brown Road. Inyokern has industries including solar energy, mining, agriculture, retail trade, and various support services. Immediately adjacent to the Project Site is a gas station and hardware store along CA SR-178. The Project Site is located within the Indian Wells Valley planning area governed by the Kern County Indian Wells Valley Land Use Management Plan (IWV LUMP), adopted by the Kern County Board of Supervisors in May 2015 (Kern County Planning and Natural Resources Department, 2015). The IWV LUMP and its associated Environmental Impact Report (IWV LUMP EIR) established the regional land use and environmental baseline for the Indian Wells Valley, including the Inyokern area. The IWV LUMP designated the Project Site and surrounding area for Service Industrial use (map code 7.2/2.5) and identified the M-2 (Medium Industrial) zone district as the applicable zoning, consistent with the proposed data center use. The IWV LUMP EIR evaluated regional hydrology, groundwater basin conditions, and land use compatibility for the Indian Wells Valley as a whole, providing the programmatic planning framework within which the Project's site-specific hydrology analysis is set.

Soil Conditions

Based on the groundwater elevation data from the California Department of Water Resources (DWR), the groundwater depth in the vicinity of the Project Site is approximately 300 feet (ft). Since the depth to groundwater is greater than 50 ft, the potential for liquefaction, lateral spread of liquefaction induced ground collapse is very low. Based on a review of California Department of Water Resources (CDWR) well records, groundwater depths in the vicinity of the Project Site have historically ranged from approximately 210 to 292 feet below ground surface. The following monitoring and supply wells have been identified within approximately 0.6 mile of the Project Site: (1) State Well ID 356522N1178032W001, located approximately 0.25 mile northeast of the site, with a shallowest recorded depth of 212 feet (1953); (2) State Well ID 26S39E30C001M, located approximately 0.57 mile west-southwest of the site, with depths ranging from 210 feet (1944) to approximately 247 feet (1979); (3) State Well ID 26S39E30F001M, located approximately 0.59 mile west-southwest of the site, with depths ranging from 220 feet (1944) to approximately 249 feet (1989); and (4) Well WCR2018-008518, located at 1245 Broadway Street approximately 0.25 mile southwest of the site, which reported a static water level of 292 feet below ground surface as of April 2018 and is completed to 596 feet total depth — this well is classified as a public water supply well (CDWR, 2018). Groundwater is not expected to be encountered during construction activities at the Project Site. A quantitative groundwater drawdown analysis by a licensed professional geologist, evaluating the effects of Project well pumping on neighboring wells within 0.5 mile and on groundwater contaminant migration, is required by Appendix B, Section (g)(14)(E)(ii) and will be prepared and submitted to the CEC as a supplement to this Application prior to or concurrent with the completion of final engineering.

A review of the Natural Resources Conservation Service's Soil Survey Geographic Database (SSURGO) showed no digital data available for the Project Site or surrounding area. A geotechnical survey, Geotechnical Engineering Report RB Solar Inyokern Project, 2015, was

completed 550 ft North of the Project Site. Due to the close proximity, it is reasonable to assume the soil properties reported are similar to those of the Project Site. Majority of the soil borings from the report showed at least a 5-foot surface layer of Silty Sand (SM) and a mix of Poorly Graded Sand with Silt (SP-SM) and Silt Sand (SM) to a depth of approximately 15 ft.

Hydrologic Soil Groups

The hydrologic soil groups are categorized by the Kern County Hydrology Manual. Soil groups are classified based on the minimum infiltration rate, and rated A, B, C, or D. The soil properties correlate to saturation levels during a flood event. Based on the hydrologic soils maps, the Soil Conservation Service describes soil groups as follows:

Soils Group A are characterized by soils having high infiltration rates even when thoroughly wetted, consisting chiefly of deep, well to excessively drained sands or gravel. The soils have high water transmission and low runoff potential. These soils, which are prevalent in the streambeds and on-site areas, are excellent for storm water retention basin use.

Soils Group B are characterized by having slow infiltration rates even when thoroughly wetted, consisting chiefly of moderately deep to deep, moderately well to well drained soils with moderately coarse textures. These soils have a moderate rate of water transmission and are generally suitable for storm water retention basins on a case-by-case basis.

Soils Group C are characterized by having slow infiltration rates even when thoroughly wetted and consisting chiefly of soils with a layer that impedes downward movement of water or soils with moderately fine to fine textures. These soils have a slow rate of water transmission.

Soils Group D are characterized by having very slow infiltration rates when thoroughly wetted, consisting chiefly of clay soils with clay pan or clay layer at or near the surface, and shallow soils over nearly impervious materials. These soils have very slow water transmission and high storm runoff potential. Storm water retention basins are not recommended for Group D soils.

Based on the soil borings of the Preliminary Soil and Geology Evaluation (BSK Associates, December 2025), it is reasonable to assume the hydrologic soil group of the Project Site is primarily Soils Group A due to the Silty Sand and Poorly Graded Sand and Silt soil classifications. However, no infiltration tests were performed as a part of the report, therefore, the hydrologic soil group would need to be confirmed when the Geotechnical Report for the Project Site is completed.

Site Specific Conditions and Drainage

Majority of the Project Site would remain undeveloped. The natural vegetation in this area would be maintained where possible to assist in erosion control and to maintain existing soil characteristics (i.e. infiltration rates). The greatest increase in impervious area would be Northwest of CA SR-178. The 41.2-acre site contains the data center, office, parking area, and access road. There is approximately 16% building coverage depicted in the conceptual site plan in Appendix A.1.

A pre- and post-development hydrology analysis was performed to evaluate changes in runoff rates and volumes. Post-development peak flow rates and runoff volumes would be mitigated through onsite retention facilities such that discharge conditions do not exceed pre-development conditions for the design storm event according to Kern County. The pre-development runoff volume was determined using The Rational Method with a C value of 0.1, typical of unimproved areas. The Kern County Hydrology Manual requires the post-development runoff volume and therefore the retention basin design volume to be calculated using the following formula:

$$\text{Runoff Volume} = (D10 / 12) \times (ai) \times (\text{Area}) = (2.66 / 12) \times (0.252) \times (41.2) = 2.2 \text{ acre-feet}$$

Where:

- D10 = 10-year, 5-day depth of rainfall = 2.66 inches
- ai = Average percentage of impervious area = 0.252
- Area = Drainage area of total development = 41.2 acres

The pre-development and post-development runoff volumes are summarized in **Table 4.10-3** (Restating Table 4-1, Hydrology Study).

Table 4.10-3 (Restating Table 4-1, Hydrology Study)
Pre- and Post-Development Runoff Volumes

Condition	Runoff Volume (acre-feet)
Pre-Development	0.9
Post-Development	2.2

The proposed retention basin is located on the west side of the data center Project Site described in Appendix A.1 and shall be designed to accommodate a runoff volume of 2.2 acre-ft and in accordance with Kern County Standards — Division Four Drainage, (Appendix E.3, Hydrology Study). The retention basin would be designed to not exceed a ponding depth of 18 inches to ensure fencing and freeboard is not required according to Section 408-3 and 408-4.

General construction requirements are outlined in Section 408-7 of the standards and include slope, freeboard, and fencing requirements. The retention basin would be designed to drain the design runoff volume within seven (7) days, consistent with the Kern County Standards outline in Section 408-8.01. A soils engineer is required to test the location of the proposed retention basin to establish soil drainage rates that comply with the retention basin drainage requirements. Drainage rate testing requirements are outlined in Section 408-8.02. The Project Site would be graded to naturally drain to the proposed retention basin on the west side of the Project Site. There would be no underground storm drain infrastructure. **Table 4.10-4** (Restating Table 4-2, Hydrology Study) summarizes the retention basin, design storm criteria, and key sizing parameters used to demonstrate compliance.

**Table 4.10-4 (Restating Table 4-2, Hydrology Study)
Retention Basin Design Parameters**

Design Element	Standard According to Kern County Standards
Design Storm	10-year, 5-day — 2.22 inches
Runoff Storage Volume	2.2 acre-feet
Freeboard Requirement	None when design water depth does not exceed 18 inches
Fencing Requirement	None when design water depth does not exceed 18 inches
Side Slopes	2:1 Minimum
Dimensions	Minimum of 20 feet by 20 feet
Drainage	Basin will completely drain the design volume within seven (7) days.
Drainage Rate	A soils engineer shall establish the soil drainage rate with a minimum of one (1) boring in the proposed retention basin location. The boring shall be advanced below the invert of the basin to a depth equivalent to at least three (3) times the design ponding depth.

Source: Kern County Standards — Division Four Drainage (Appendix E, Hydrology Study)

The subtransmission line will be installed above ground with power poles at regular intervals along the route. The SCE POI substation consists of above-ground, uncovered electrical equipment on a primarily native soil footprint. Neither of these site elements will increase runoff after construction and therefore do not require on-site retention.

Hydraulic modeling confirms that the data center, subtransmission line, and substation are not located in areas subject to flood accumulation from Little Dixie Wash or existing watercourses. Consequently, construction of these Project components will not increase flood heights or velocities, in compliance with the Kern County Floodplain Management Ordinance, attached as Appendix F in the Hydrology Study. However, the Project Site elements shall comply with the

recommended base flood elevation of 1.0 ft to comply with FEMA Floodplain Map Zone A requirements.

Given the Project's implementation of onsite retention and compliance with Kern County Standards, the Project is not expected to contribute to cumulatively considerable increase in downstream peak flows, flood risk, or pollutant loading when combined with other reasonably foreseeable projects in the area.

Water Quality

Potential construction-related pollutant sources include sediment, fuels, lubricants, and concrete washout. Operational pollutant sources may include vehicle fluids and equipment oils. The Project will implement BMPs consistent with the Construction General Permit and SWPPP to minimize pollutant discharge, including perimeter controls, stabilize entrances, sediment basins where required, and spill prevention/response measures.

Spill prevention and response measures will be implemented during construction and operation to prevent pollutants from being mobilized by stormwater. Fueling and maintenance activities will be conducted in designated areas with secondary containment and appropriate spill kits. Any spills will be promptly contained and cleaned up to prevent discharge to stormwater conveyances or offsite areas.

Operations and Maintenance

The Applicant shall operate and maintain stormwater conveyance and storage facilities for the life of the project. Maintenance activities will include removal of sediment and debris, repair of erosion, and inspection of outlet structures and spillways. Inspections shall occur at least annually and following major storm events, with corrective actions documented. Operational wastewater from the Project will be discharged to the Inyokern CSD's publicly owned treatment works (POTW) pursuant to the CSD executed Will Serve Letter dated April 2, 2026. The CSD's preliminary average dry weather flow estimate for the Project is approximately 6,640 to 6,670 gpd, with a peak wet weather flow factor of approximately 2.5 times average dry weather flow used for pipeline sizing. The primary wastewater stream is sanitary and domestic (restrooms, break rooms, locker facilities). Cooling tower blowdown is a secondary wastewater stream that will require pretreatment characterization review; the CSD will require submittal of a Wastewater Characterization Report no later than 30 days prior to commencement of construction and will determine whether a Significant Industrial User permit under 40 Code of Federal Regulations Part 403 is required. The Project is not designed as a zero liquid discharge (ZLD) facility; conventional cooling tower blowdown discharge to the CSD POTW is the preferred approach because ZLD treatment systems at the required scale would impose capital and operational costs that are disproportionate to the environmental benefit given the CSD's available treatment capacity. Any future battery energy storage systems (BESS) installed on-site will be assessed for potential fluoride, lithium, and PFAS contributions to the wastewater discharge stream prior to discharge to the CSD system. Source water quality characterization for the CSD supply and on-site wells, including constituent concentrations before and after treatment, will be provided to the County and CEC prior to or concurrent with final engineering submittals, consistent with Appendix B of the

Hydrology Study, Section (g)(14)(C)(ii). Water mass balance and heat balance diagrams for average and maximum flow conditions will also be provided with final engineering submittals, consistent with Appendix B, Section (g)(14)(C)(iv) and (vii).

4.10.2 Regulatory Settings

Federal

Clean Water Act (33 USC 1251-1387)

The Federal Clean Water Act (CWA) 33 U.S.C 1251-1387 has its origin in 1899 with the Rivers and Harbor Act. Since that time, the CWA has evolved into its present form via numerous amendments, including the Federal Water Pollution Control Act of 1972 (P.L. 92-217), the Clean Water Act of 1977 (P.L. 95-217), and the Water Quality Act of 1987 (P.L. 100-4).

The Clean Water Act is administered by the Federal Environmental Protection Agency, which has delegated authority and enforcement to some states, including California. The stated objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Except within the provisions of the CWA, discharge of pollutants into any navigable waters of the United States is prohibited.

Pollutants have been broadly defined to include anything introduced from the outside world, or an increase in a material that is already present. This includes erosion of natural material into the watershed in excess of that which naturally occurs. The jurisdiction of the CWA is based on Congress's authority to protect the flow of interstate commerce. One component of interstate commerce is protection of navigable waters of the United States. The CWA defines "Navigable Waters" as "waters of the United States." Under the regulation of the Environmental Protection Agency, "waters of the United States" include the following:

- The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide.
- Tributaries.
- Lakes and ponds, and impoundments of jurisdictional waters.
- Adjacent Wetlands.

The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point-source and certain nonpoint – source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine Regional Water Quality Control Board (RWQCBs). The Project Site is within the Lahontan RWQCB. Projects that disturb 1 acre or more, including the proposed Project, are required to obtain NPDES coverage under the Construction General Permits.

Section 402, National Pollutant Discharge Elimination System

Section 402 of the CWA authorizes the State Water Resources Control Board (SWRCB) to issue a NPDES General Construction Stormwater Permit (Water Quality Order 2009-0009-DWQ), referred to as the "General Construction Permit." Construction activities can comply with and be covered under the General Construction Permit provided that they:

- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off Site into receiving waters.
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation.
- Perform inspections of all BMPs.

NPDES regulations are administered by the Lahontan RWQCB at the Project Site.

Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) administers the regulations of new developments encroaching within a flood zone as published in "Standards for Flood Risk Analysis and Mapping," November 2016.

National Flood Insurance Program

The National Flood Insurance Program (NFIP), implemented by the Congress of the United States in 1968, enables participating communities to purchase flood insurance. Flood insurance rates are set according to flood-prone status of property as indicated by FIRM (flood insurance rate maps) developed by the Federal Emergency Management Agency.

FIRMs identify the estimated limits of the 100-year floodplain for mapped watercourses, among other flood hazards. As a condition of participation in the NFIP, communities must adopt regulations for floodplain development intended to reduce flood damage for new development through such measures as floodproofing, elevation on fill, or floodplain avoidance. Kern County participates in the NFIP.

State

Permitting and Compliance for the Clean Water Act

The CWA contains a broad range of tools to meet the statutory objectives, including the following:

Section 301: prohibits discharges of pollutants, except as provided by the CWA.

Section 303: requires states to identify "impaired" water bodies as those that do not meet water quality standards. States are required to compile this information in a list and submit the list to the

USEPA for review and approval. This list is known as the Section 303(d) list of impaired waters. As part of this listing process, states are required to prioritize waters and watersheds for future development of Total Maximum Daily loads (TMDL) requirements. The SWRCB and RWQCBs have ongoing efforts to monitor and assess water quality, to prepare the Section 303(d) list, and to develop TMDL requirements.

Section 401: requires any activity that may result in any discharge into navigable water to provide certification to the appropriate state agency that any such discharge will comply with the applicable provisions of the CWA. In the case of California, the enforcing agency is the RWQCB.

Section 402: established a framework for regulating municipal and industrial discharges of storm water into waters of the United States under the NPDES permit program. The latest update to the NPDES program (referred to as Phase II rule – effective December 8, 1999), requires permitting for construction activity that disturbs land greater than or equal to one acre. The NPDES regulations provide two permitting options for storm water discharges (Individual and General Permits). However, the SWRCB has opted to acquire one statewide General Permit (NPDES No. CAS000002) to cover all construction activity in the State of California, except Tribal Lands, Projects by the California Department of Transportation, and the Lake Tahoe Hydrologic Unit. These exceptions are regulated under separate permits. This Project is covered under the State's General Permit (provided the provisions of the permit are followed). The State of California's General Permit was issued with the requirement that all construction activity that disturbs one or more acres is subject to the following requirements:

- Develop and implement a SWPPP. The SWPPP must specify BMPs to prevent construction pollutants from contacting storm water and keeping all products of erosion from moving off Site into receiving waters.
- Eliminate or reduce non-storm water discharges to storm sewer systems and other waters of the United States.
- Perform inspections of BMPs.
- Prior to commencement of grading or other land disturbance, the landowner must provide notification to the SWRCB. This obligation is met when the landowner files a "Notice of Intent" (NOI) with the SWRCB and pays the appropriate fee. The NOI is a mechanism to establish responsible parties, dischargers, and scope of the proposed operations.

Section 404: requires a permit for the discharge or placement of dredge or fill material within "jurisdictional waters," or waters of the United States. This permit is issued by the United States Army Corps of Engineers (USACE). As discussed, jurisdiction of the CWA is limited to "waters of the United States" (often referred to as "jurisdictional waters"). The SWRCB defers determination of "jurisdictional waters" to the USACE. The USACE has made the determination the watershed associated with the Project is non-jurisdictional waters. This determination means that the Project will not require a Section 404 permit. However, under the California Porter-Cologne Water Quality Control Act, the SWRCB has released a legal memorandum confirming the State's jurisdiction over isolated wetlands. Said memorandum has indicated generally that discharges to "Waters of the State" are subject to state regulation. "Waters of the State" have been defined under State law to mean any surface water, groundwater, or saline water, within the State's

boundary. "Waters of the state" includes all "waters of the U.S." The following wetlands are considered "Waters of the state":

- Natural wetlands
- Wetlands created by modification of a surface water of the state
- Artificial wetlands that meet any of the following criteria:
 - Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration
 - Specifically identified in a water quality control plan as a wetland or other water of the State
 - Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape
 - Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes:
 - Industrial or municipal wastewater treatment or disposal.
 - Settling of sediment.
 - Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program.
 - Treatment of surface waters.
 - Agricultural crop irrigation or stock watering.
 - Fire suppression.
 - Industrial processing or cooling.
 - Active surface mining — even if the Site is managed for interim wetlands functions and values.
 - Log storage.
 - Treatment, storage, or distribution of recycled water.
 - Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits).
 - Fields flooded for rice growing.

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in b), c) i, or c) ii are not waters of the state. If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state. As a result, the SWRCB regulates discharges to "Waters of the State" and isolated waters similarly to waters of the United States. Again, for waters not subject to federal jurisdiction, SWRCB regulation is under the authority of Porter-Cologne rather than the CWA.

In effect, the Project must comply with all the requirements of the NPDES permitting process as applicable.

Porter-Cologne Act (California Water Code Section 13000 ET. Seq.)

Water quality in California is further protected under the Porter-Cologne Water Quality Control Act. This law assigns responsibility for protection of water quality to the State Water Resources Control Board (SWRCB). The SWRCB is divided into nine statewide Regional Water Quality Control Boards (RWQCBs), which enforce water quality standards.

The SWRCB is the primary State agency responsible for protecting the quality of the State's surface and groundwater supplies and has delegated primary implementation authority to the nine RWQCBs. The Porter-Cologne Act assigns responsibility for implementing the Clean Water Act Sections 401 through 402 and 303(d) to the SWRCB and the nine RWQCBs.

The Porter-Cologne Act requires the development and periodic review of water quality control plans (basin plans) that designate beneficial uses of California's major rivers and groundwater basins and establish narrative and numerical water quality objectives for those waters, provide the technical basis for determining waste discharge requirements, identify enforcement actions, and evaluate clean water grant proposals. The basin plans are updated every 3 years. Compliance with basin plans is primarily achieved through implementation of the NPDES, which regulates waste discharges as discussed above.

The Porter-Cologne Water Quality Control Act requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, which could affect the quality of the "waters of the State," file a report of waste discharge. Absent a potential effect on the quality of "waters of the State," no notification is required. However, the RWQCB encourages implementation of BMPs similar to those required for NPDES stormwater permits to protect the water quality objectives and beneficial uses of local surface waters as provided in the Lahontan Region Water Quality Control Plan (Basin Plan) (RWQCB, 2016).

California Department of Fish and Wildlife — Section 1602

In the interest of conserving and protection fish, wildlife and native plant resources, Section 1602 of the California Fish and Wildlife (CDFW) Code requires anyone to notify the CDFW of any proposed activity that may substantially modify a river, stream, or lake. Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams and lakes in the State of California. Upon notification, the CDFW will evaluate the proposed activity, and make a determination whether an alteration agreement is needed. The alteration agreement will impose conditions upon the proposed activity.

Section 1602 of the California Fish and Game Code protects the natural flow, bed, channel, and bank of any river, stream, or lake designated by the California Department of Fish and Wildlife (CDFW) in which there is, at any time, any existing fish or wildlife resources, or benefit for the resources. Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state, and requires any person, state or local governmental agency, or public utility to notify the CDFW before beginning any activity that will:

- Substantially divert or obstruct the natural flow of any river, stream or lake;

- Substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

During final engineering and design of a Project, if it is determined that any Project-related actions would have the potential to necessitate a streambed alteration agreement, such an agreement would be prepared and implemented prior to construction of the Project, thus maintaining compliance with Section 1602 of the California Fish and Game Code. A streambed alteration agreement is required if the CDFW determines the activity could substantially adversely affect an existing fish and wildlife resource. The agreement includes measures to protect fish and wildlife resources while conducting the Project. The CDFW must comply with CEQA before it may issue a final lake or streambed alteration agreement; therefore, the CDFW must wait for the lead agency to fully comply with CEQA before it may sign the draft lake or streambed alteration agreement, thereby making it final.

Public Resources Code Section 21060.1

The Public Resource Code Section 21060.1 defines agricultural land for the purposes of assessing environmental impacts using the FMMP. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP provides an analysis of agricultural land use and land use changes throughout California.

Sustainable Groundwater Management Act (SGMA)

The Sustainable Groundwater Management Act requires the formation of local-controlled groundwater sustainable agencies in high- and medium-priority groundwater basins. These groundwater sustainability agencies are responsible for developing and implementing a groundwater sustainability plan to ensure the basin is operated within its sustainable yield without causing undesirable results (DWR, 2020). In December of 2016, the Indian Wells Valley Groundwater Authority (IWVGA) elected to undertake sustainable groundwater management for the entirety of the Indian Wells Valley Groundwater Basin (DWR, 2016c). A groundwater sustainability plan has been drafted and was adopted by the IWVGA on January 16, 2020 (IWVGA, 2020).

State and Kern County Review and Oversight

The Kern County General Plan and the Kern County Zoning Ordinance control local land uses within agricultural areas. These documents identify the types of land uses permitted in agricultural zones and define the development parameters within each land use category.

Kern County Public Works

The County's Public Works staff will review all grading and drainage improvements, including hydrology and hydraulic calculations. In accordance with the California Building Code and Grading Guidelines for Kern County, a grading permit will be required. At the time of this report,

the County of Kern does not review the SWPPPs. However, the County "Applicability of NPDES Storm Water Program" form must be completed and approved.

The Lahontan Regional Water Quality Control Board

The RWQCB will review the Project in accordance with the requirements of the CWA and Porter Cologne. A Section 401 Water Quality Certification will be required as applicable for the Project. In addition, the RWQCB will review the SWPPP. Upon its acceptance of the SWPPP, the RWQCB will issue a Waste Discharge Identification (WDID) Number for the Project. As discussed in Section 4.1 of this report, preparation of a SWPPP and issuance of a WDID number are part of the requirements of the State of California's General Permit for the NPDES program.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife Service (CDFW) will review the Project in accordance with the requirements of Section 1600 et seq. of the CDFW. Said Section 1600 et seq. applies to all perennial, intermittent and ephemeral rivers, streams, and lakes in the State.

Local

Indian Wells Valley Water District's Water Supply Enhancement General Plan

The Indian Wells Valley Water District (IWWVD) is a County Water District serving approximately thirty thousand (30,000) people in and around the Ridgecrest, California area. The District has but a single source of supply, the local ground water aquifer underlying the Indian Wells Valley. To address concerns arising from decline of the Valley's ground water levels, the District has developed this Water Supply Enhancement Plan. This Plan is intended to assist the District in addressing not just the present needs, but also future needs.

The goal of the Indian Wells Valley Water District Water Supply Enhancement General Plan is to further the IWWVD's ongoing efforts to optimize use of the existing water supply (Valley ground water) and to evaluate the feasibility of obtaining or developing one or more supplemental water supplies for potential future use. The Plan determined the costs of optimizing existing groundwater supply and consideration of supplemental water from within and outside the Valley (IWWVD, 2013).

Indian Wells Valley Groundwater Authority's Groundwater Sustainability Plan (GSP)

The IWVGA Board of Directors adopted Resolution No. 02-16 Joint Exercise of Powers Agreement creating the Indian Wells Valley Groundwater Authority, on December 8, 2016, to establish the IWVGA as the exclusive GSA for the entirety of the IWVGB. Five agencies, including Kern County, Inyo County, San Bernardino County, Ridgecrest, and the IWWVD entered into a joint exercise of powers agreement to form the IWVGA and serve as General Members on the IWVGA Board of Directors, which governs the IWVGA as a whole. A significant amount of land overlying the IWVGB comprises either the NAWS China Lake or public lands managed by the United States Bureau of Land Management (BLM). The U.S. Navy and BLM serve as Associate Members (non-voting) on the IWVGA Board of Directors.

The IWVGA Board established an eleven-person, voting-member Policy Advisory Committee (PAC) to advise the Board on all policy-related matters of the Board and to develop non-binding proposals on policy matters pertaining to the GSP. The PAC is comprised of voting members from the following constituent groups: 2 representatives from Large Agriculture; 1 representative of Small Agriculture; 2 representatives from Business Interests; 2 representatives from Domestic Well Owners; 2 representatives from residential customers of a public water agency supplier; 1 representative from the Eastern Kern County Resource Conservation District; and 1 representative from Wholesaler and Industrial User

The PAC is also comprised with non-voting members from the following agencies: U.S. Navy; IWWWD; BLM and Kern County

The IWVGA Board also established a Technical Advisory Committee (TAC) for the express purpose of giving interested parties a reasonable opportunity to review and conduct a thorough evaluation of each technical element of the GSP prior to its finalization by the Water Resources Manager. The TAC is comprised of members from the following constituent groups: Large Agriculture; Business Interests; Residential Customers of a Public Water Agency; Domestic Well Owners; Eastern Kern County Resource Conservation District; Wholesale and Industrial User; Indian Wells Valley Water District; United States Navy (Non-voting member); and the Kern County Water Agency.

A Groundwater Sustainability Plan (GSP) was developed that discusses Basin management strategies that will culminate in the absence of undesirable and unsustainable Groundwater conditions in the IWVGB. The GSP recommends management actions and Projects and provides measurable sustainability objectives and milestones that are intended to achieve Basin sustainability while considering the unique geologic and hydrogeologic conditions of the IWVGB. The recommendations in the GSP are designed to provide for long-term sustainable groundwater management in the IWVGB within 20 years of GSP implementation. The GSP was adopted via Resolution 01-20 by the IWVGA Board on January 16, 2020; however, the GSP was subsequently approved by the California Department of Water Resources (DWR) in January 2022.

Kern County General Plan

The policies, goals, and implementation measures in the Kern County General Plan for hydrology and water resources applicable to the proposed Project are provided below. Policies, goals, and implementation measures in the General Plan that are not specific to development are not listed below. However, all policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Land Use, Open Space, and Conservation Element; Physical and Environmental Constraints

Policy 1 Kern County will ensure that new developments will not be Sited on land that is physically or environmentally constrained (Map Code 2.1 [Seismic Hazard], Map Code 2.2 [Landslide], Map Code 2.3 [Shallow Groundwater], Map Code 2.5 [Flood Hazard], Map Codes from 2.6 – 2.9, Map Code 2.10 [Nearby Waste Facility], and Map Code 2.11 [Burn Dump Hazard]) to support such development unless

appropriate studies establish that such development will not result in unmitigated significant impact.

- Policy 9 Construction of structures that impede water flow in a primary floodplain will be discouraged.
- Policy 10 The County will allow lands which are within flood hazard areas, other than primary floodplains, to be developed in accordance with the General Plan and Floodplain Management Ordinance, if mitigation measures are incorporated so as to ensure that the proposed development will not be hazardous within the requirements of the Safety Element (Chapter 4) of this General Plan.
- Policy 11 Protect and maintain watershed integrity within Kern County.
- Measure F The County will comply with the Colbey-Alquist Floodplain Management Act in regulating land use within designated floodways.
- Measure H Development within areas subject to flooding, as defined by the appropriate agency, will require necessary flood evaluations and studies.
- Measure J Compliance with the Floodplain Management Ordinance prior to grading or improvement of land for development or the construction, expansion, conversion or substantial improvements of a structure is required.
- Measure N Applicants for new discretionary development should consult with the appropriate Resource Conservation District and the California Regional Water Quality Control Board regarding soil disturbances issues.

The Project is consistent with Policies 1, 9, 10, and 11 and Measures F, H, J, and N of the Land Use, Open Space, and Conservation Element. Appropriate site-specific studies, including the Hydrology Study (Appendix E.1) and the Soil and Geology Report (Appendix K.1), have been completed to establish that the Project will not result in unmitigated significant flood hazard impacts. The Project is designed to comply with the Kern County Floodplain Management Ordinance, does not include structures that would impede primary floodplain flows, and incorporates mitigation measures to ensure development within the flood hazard area is not hazardous. The Applicant would consult with the RWQCB regarding soil disturbance consistent with Measure N.

Land Use, Open Space, and Conservation Element; Resources Element

- Policy 11 Minimize the alteration of natural drainage areas. Require development plans to include necessary mitigation to stabilize runoff and silt deposition through utilization of grading and flood protection ordinances.

General Plan General Provisions, 1.10.6: Surface Water and Groundwater

- Policy 34 Ensure that water quality standards are met for existing users and future development.
- Policy 40 Encourage utilization of community water system rather than the reliance on individual wells.
- Policy 41 Review development proposals to ensure adequate water is available to accommodate Projected growth.
- Policy 43 Drainage shall conform to the Kern County Development Standards and the Grading Ordinance.
- Policy 44 Discretionary Projects shall analyze watershed impacts and mitigate for construction-related and urban pollutants, as well as alterations of flow patterns and introduction of impervious surfaces as required by the California Environmental Quality Act (CEQA), to prevent the degradation of the watershed to the extent practical.
- Measure Y Promote efficient water use by utilizing measures such as: Requiring water-conserving design and equipment in new construction; Encouraging water-conserving landscaping and irrigation methods; and Encouraging the retrofitting of existing development with water conserving devices.

The Project is consistent with Policy 11 (Resources Element) and Policies 34, 40, 41, 43, and 44 and Measure Y of the General Provisions, Section 1.10.6. The Project connects to the Inyokern CSD community water system consistent with Policy 40 and has demonstrated available water supply through the CSD executed Will Serve Letter consistent with Policy 41. The Project's drainage design complies with Kern County Development Standards consistent with Policy 43. A comprehensive watershed impact analysis has been completed consistent with Policy 44. The CSD executed Will Serve Letter conditions include mandatory water conservation measures — minimum cycles of concentration of 5.0, conductivity controllers, side-stream filtration, and drift eliminators — is consistent with Measure Y.

Inyokern Specific Plan

The entire Project Site is subject to the provisions of the Inyokern Specific Plan, which contains goals, policies, and standards that are compatible with those of the Kern County General Plan, but are unique to the specific needs of the of the Inyokern Area. The Land Use, Open Space, and Conservation Element of the Inyokern Specific Plan identifies physical constraints, public, residential, commercial, and industrial facilities as well as cultural and biological resources within the Plan area. The goals, policies, and implementation measures in the Inyokern Specific Plan for hydrology and water quality applicable to the Project are provided below. Additionally, the Seismic Safety and Safety Element of the Inyokern Specific Plan includes goals and policies that relate to flooding hazards. The Inyokern Specific Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such

as the Project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

Land Use, Open Space, and Conservation Element; Physical Constraints

- Goal 1 To promote a safe and healthful living environment, reduce the potential for property damage and injury and minimize economic and social diseconomies in general by requiring development standards which adequately mitigate the physical constraints of noise and flood hazard.
- Policy 2 Development may occur on lands within flood hazard areas, other than established designated floodways, if measures are incorporated to ensure that it will not be hazardous, increase flood depths or velocities, or cause water quality to deteriorate.
- Measure 1 Site development shall be accomplished in compliance with the Kern County Flood Damage Prevention Ordinance. Development standards and prohibitions shall be the same as in that ordinance.
- Measure 2 Permanent structures within the secondary floodplain areas shall comply with the Flood Damage Prevention Ordinance.

Specific Plan Commercial Element

- Measure 2 Development within areas subject to flooding shall be in accordance with the Kern County Flood Hazard Ordinances.

Specific Plan Industrial Element

- Goal 3 To promote economic strength without detriment to environmental quality.
- Policy 2 Industrial development must demonstrate the ability to provide adequate water, sewer and other public services.
- Policy 6 Industrial development within floodplain areas shall conform to the requirements of the Kern County Flood Hazard Ordinances.
- Measure 4 All new industrial subdivisions and, where applicable, PD (Precise Development) plans shall include provisions for standard street access, alleys where necessary, and sewer and water connections to the Inyokern CSD.

Specific Plan Resources Element

- Policy 4 Encourage effective management of the groundwater resource for the long-term economic benefit of the community by any or all of the following: (a) artificial groundwater replenishment; (b) conjunctive use of surface water supplies and the groundwater supplies; (c) development of alternative local and imported surface

water supplies; and (d) requiring permits for well construction, modification, or abandonment.

Specific Plan Seismic Safety and Safety Element

Goal 1	To ensure the safety of the area residents from environmentally related hazards.
Policy 3	Measures shall be taken to minimize the impacts of flood hazards to area residents.
Measure 2	All new development shall provide for the containment of on-Site drainage waters. Drainage plans must meet the approval of the Kern County Department of Planning and Development Services.
Measure 4	Requirements of Floodplain Management Section of the Department of Planning and Development Services shall be met prior to the issuance of Certification of Occupancy.

The Project is consistent with the applicable goals, policies, and implementation measures of the Inyokern Specific Plan cited above. The Project is an industrial data center use consistent with the Industrial Element's Goal 3 (economic strength without environmental detriment) and Policy 2 (adequate water, sewer, and public services demonstrated through the Inyokern CSD executed Will Serve Letter). The Project would connect to the Inyokern CSD for water and sewer service consistent with Industrial Measure 4. The Project's design incorporates one foot of freeboard above the 100-year flood depth, compliance with the Kern County Flood Damage Prevention Ordinance, and a final drainage plan prior to grading, consistent with Physical Constraints Policy 2 and Measures 1 and 2. The Project satisfies the Seismic Safety Element Policy 3 and Measure 2 through the preparation of drainage plans subject to County approval and through MM 4.10-1. Resources Policy 4 is addressed through the Project's compliance with the IWVGA Groundwater Sustainability Plan under MM 4.10-2.

Kern County Zoning Ordinance

Chapter 19.70: Floodplain Combining District

Section 19.70.040 prohibits the following uses in the Floodplain Combining District, as applicable to the proposed Project:

The Section 19.70.040 prohibited uses most relevant to industrial development within a Floodplain Combining District include: uses that would increase flood hazard or affect water-carrying capacity of the floodplain (Measure B); dumping, stockpiling, or storage of floatable substances (Measure C); storage of junk or salvage operations (Measure D); oil storage tanks or processing equipment not flood-proofed or elevated above Base Flood Elevation (Measure E); individual sewage disposal systems not protected by flood control devices (Measure F); and unprotected sources of water supply such as wells or springs (Measure G). The proposed Project — a data center industrial use — does not include any of these prohibited uses. The Project does not involve junk or salvage storage, floatable material stockpiling, or unprotected individual sewage disposal systems. The Project would connect to the Inyokern CSD for wastewater disposal rather than using

individual sewage disposal systems. Any on-site backup wells would be engineered and sited in compliance with Kern County Public Health requirements and the applicable flood control device requirements of the ordinance, consistent with Measure G. The Project is therefore consistent with the applicable requirements of Kern County Zoning Ordinance Section 19.70.040.

Implementation Measures

- Measure B All uses that will likely increase the flood hazard or affect the water-carrying capacity of the floodplain beyond the limits resulting from encroachment as specified in Section 19.70.130.
- Measure C Dumping, stockpiling, or storage of floatable substances or other materials which, in the opinion of the Kern County and Survey Services Department, will add to the debris loads of the stream or watercourse, unless protected by flood control devices approved by the Kern County Public Works Department and constructed in accordance with Section 19.70.130.
- Measure D Storage of junk or salvage operations.
- Measure E Oil storage tanks or processing equipment, unless flood-proofed or sufficiently elevated above the Base Flood Elevation, as determined by the Kern County Public Works Department.
- Measure F Individual sewage disposal systems (e.g., septic tank systems), unless protected by flood control devices approved by the Kern County Public Works Department and constructed in accordance with the requirements of the Kern County Health Department so as to minimize infiltration of floodwaters into the systems and discharges from the systems into the floodwaters.
- Measure G Sources of water supply (e.g., wells, springs) unless protected by flood control devices approved by the Kern County Public Works Department and constructed in accordance with the requirements of the Kern County Health Department so as to minimize infiltration of floodwaters.

Kern County Grading Ordinance Code of Building Regulations

Grading Code (Chapter 17.28)

Chapter 17.28, Kern County Grading Code. Requirements of the Kern County Grading Code will be implemented. A grading permit will be obtained prior to commencement of construction activities. Of particular note with respect to hydrology and water quality is Section 17.28.140, Erosion Control, which addresses the following:

- **Slopes.** The faces of cut and fill slopes shall be prepared and maintained to control against erosion. This control may consist of effective planting. The protection for the slopes shall be installed as soon as practicable and prior to calling for final approval. Where cut slopes

are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted.

- **Other Devices.** Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety.
- **Temporary Devices.** Temporary drainage and erosion control shall be provided as needed at the end of each work day during grading operations, such that existing drainage channels would not be blocked. Dust control shall be applied to all graded areas and materials and shall consist of applying water or another approved dust palliative for the alleviation or prevention of dust nuisance. Deposition of rocks, earth materials or debris onto adjacent property, public roads or drainage channels shall not be allowed.

Kern County Floodplain Management Ordinance (17.48)

Any construction that takes place within areas of special flood hazards, areas of flood-related erosion hazards, and areas of mudslide (i.e., mudflow) hazards within the jurisdiction of unincorporated Kern County will comply with the requirements and construction design specifications of this ordinance. Any required development permits will be obtained prior to commencement of construction activities. Sections 17.48.250 through 17.48.350 of the ordinance elaborate on the standards of construction in the special flood hazards area. This includes the requirement of one-foot of freeboard clearance above the calculated maximum flood depths for all facilities within a 100-year floodplain.

Kern County Development Standards

The Kern County Development Standards apply to all developments within Kern County that are outside of incorporated cities. These standards establish minimum design and construction requirements that will result in improvements that are economical to maintain and will adequately serve the general public. The requirements set forth in these standards are considered minimum design standards and will require the approval of the entity that will maintain the facilities to be constructed prior to approval by the County.

Kern County Water Quality Control Plan

Each of the nine RWQCBs adopts a Water Quality Control Plan, which recognizes and reflects regional differences in existing water quality, the beneficial uses of the region's groundwater and surface waters, and local water quality conditions and problems. Water quality problems in the regions are listed in these plans, along with the causes, if they are known. Each RWQCB is to set water quality objectives that will ensure the reasonable protection of beneficial uses and the prevention of nuisance, with the understanding that water quality can be changed somewhat without unreasonably affecting beneficial uses.

The Kern County Public Works Department, Engineering and Survey Services Division, requires the completion of an NPDES Applicability Form for all construction Projects disturbing 1 acre or more within Kern County. This form requires the Project proponent to provide background

information on construction activities. Applicants must apply for the permit under one of the following four conditions:

1. All stormwater is retained on-site and no stormwater runoff, sediment, or pollutants from on-site construction activity can discharge directly or indirectly off-site or to a river, lake, stream, municipal storm drain, or off-site drainage facilities.
2. All stormwater runoff is not retained on Site, but does not discharge to a Water of the United States (i.e., drains to a terminal drainage facility). Therefore, a SWPPP has been developed and BMPs must be implemented.
3. All stormwater runoff is not retained on Site, and the discharge is to a Water of the United States. Therefore, a Notice of Intent (NOI) must be filed with the State Regional Water Resources Control Board prior to issuance of the building permit. Also, a SWPPP has been developed and BMPs must be implemented.
4. Construction activity is between 1 to 5 acres and an Erosivity Waiver was granted by the SWRCB. BMPs must be implemented.

4.10.3 Impacts and Mitigation Measures

Methodology

The proposed Project's potential impacts to hydrology and water quality have been evaluated using the Project Description, the Hydrology Study (Appendix E.1), the Water Supply Assessment (Appendix E.3), the Hazards and Hazardous Waste Assessment (Appendix J.2), the Phase I Environmental Assessment (Appendix J.1), the Soil and Geology Report (Appendix K.1), and the Groundwater Sustainability Plan for the Indian Wells Valley Groundwater Basin (IWVGA, 2020). Using the aforementioned resources and professional judgment, impacts were analyzed according to CEQA significance criteria described below.

In respect to mitigation measures, all applicable laws, ordinances, regulations, and standards (LORS) for hydrology and water quality include the SWRCB Construction General Permit (CAS000002), Kern County Hydrology Manual and drainage criteria, Kern County grading requirements, and Kern County Flood Plain Management ordinance. Project design and implementation measures will be consistent with these requirements.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a Project could potentially have a significant adverse effect on hydrology and water quality.

A Project could have a have a significant impact on hydrology and water quality if it would:

- a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin;
- c. Substantially alter the existing drainage pattern of the Site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - i. Result in substantial erosion or siltation on-site or off-site;
 - ii. Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-site or off-site;
 - iii. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
 - iv. Impede or redirect flood flows;
- d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation; or
- e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Project Impacts

Impact 4.10-1: Would the Project would violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality.

Construction

Project construction would include mowing, excavation, and grading portions of the Project Site. Conventional grading would be performed as needed throughout the Project Site. However, because the Project area is relatively flat, it is anticipated that grading would be limited in most areas. Grading and excavation would also be required for the proposed foundations of infrastructure such as the modular data center buildings and surface pavement areas. Installation of the solar panels on rooftops of the modular data center buildings and PV parking lot canopies will not require grading of the Site with the exception of roads to meet fire code standards. These activities would affect current drainage patterns and erosion on the Project Site; however, designing the Site grading and access roads in compliance with County standards would prevent substantial alterations to drainage patterns and erosion within the Project Site. Impervious surfaces from construction of access roads, foundations, substations, and other improvements would be relatively limited compared to the overall perviousness of the remaining Project Site.

Potential impacts on water quality from erosion and sedimentation are expected to be localized and temporary during construction. Stormwater runoff from the Project Site would not discharge to waters of the United States since the Project area is within a watershed that is not hydrologically connected to a navigable waterway. However, according to the Kern County Public Works Department NPDES Applicability Form, the Project would be required to implement a SWPPP during construction. Per Mitigation Measure MM 4.7-3 in Section 4.7, Geology and Soils, the SWPPP would include BMPs designed to prevent the occurrence of soil erosion and discharge of other construction-related pollutants that could contaminate water quality and would be applicable to all areas of the Project, including the subtransmission line. In addition, prior to the commencement of construction activities, the Project proponent would be required to adhere to the requirements of the Kern County Grading Code. This includes implementation of various measures designed to prevent erosion and control drainage on-site, thereby further preventing the potential sedimentation and subsequent degradation of stormwater.

During Project construction, any activity that results in the accidental release of hazardous or potentially hazardous materials could result in water quality degradation. Further, any construction activity that results in the accidental release of pollutants, hazardous or potentially hazardous materials could result in water quality degradation. Materials that could contribute to this impact include, but are not limited to, diesel fuel, gasoline, lubricant oils, hydraulic fluid, antifreeze, transmission fluid, lubricant grease, cement slurry, and other fluids utilized by construction and maintenance vehicles and equipment. Motorized equipment could leak hazardous materials such as motor oil, transmission fluid, or antifreeze due to inadequate or improper maintenance, unnoticed or unrepaired damage, improper refueling, or operator error.

As noted in Section 4.9, Hazards and Hazardous Materials, of this Application, Mitigation Measure MM 4.9-1 would require the Project proponent to provide a Hazardous Materials Business Plan that would delineate hazardous material and hazardous waste storage areas; describe proper handling, storage, transport, and disposal techniques; describe methods to be used to avoid spills and minimize impacts in the event of a spill; describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction; and establish public and agency notification procedures for spills and other emergencies, including fires. Therefore, with implementation of Mitigation Measures MM 4.7-3 and MM 4.9-1, impacts to water quality would be less than significant during construction.

Operation and Maintenance

During Project operation, maintenance activities on the facility, including any chemicals or pollutants on the Project Site, could potentially be mobilized and transported in surface runoff during storm events, potentially degrading water quality. However, per Mitigation Measure MM 4.10-1, a drainage plan would be prepared in accordance with the Kern County Development Standards and Kern County Code of Building Regulations. Therefore, the drainage plan would include post-construction structural and nonstructural BMPs that could include features such as drainage swales for collection of runoff prior to off-site discharge. Adherence to these requirements would minimize potential for operation period water quality degradation. Apart from infrequent cleaning of panels with water that would result in minimal runoff, no other discharges would occur when the Project is operational. Therefore, with the implementation of Mitigation

Measures MM 4.9-1 and MM 4.10-1, Project operation would not violate water quality standards or waste discharge requirements or otherwise degrade water quality.

Mitigation Measures: Implementation of Mitigation Measures MM 4.7-3, MM 4.9-1 and MM 4.10-1 would be required (see Section 4.10.4).

Level of Significance: With implementation of Mitigation Measures MM 4.7-3, MM 4.9-1, and MM 4.10-1, impacts would be *less than significant*.

Impact 4.10-2: Would the Project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.

Construction

During construction of the proposed Project, water would be initially required for site preparation and grading activities. During earthwork for grading of access road foundations, equipment pads and Project components, the main use of water would be for compaction and dust control. Smaller quantities would be required for preparation of the concrete required for foundations and other minor uses. Subsequent to the earthwork activities, water usage would be used for dust suppression and normal construction water requirements that are associated with construction of the building, internal access roads, and solar arrays.

A sanitary water supply would not be required during construction, as restroom facilities would be provided by portable units to be serviced by licensed providers. It is assumed that bottled water will be provided to construction workers.

The overall construction water usage for dust control and Site preparation is anticipated during construction to be approximately 27 to 34 acre-feet (approximately 9 to 11 million gallons) over the approximately 48-month construction period, with peak daily demand up to approximately 25,000 gallons per day during earthwork and average daily demand of approximately 7,000 to 8,000 gallons per day. Water required for construction of the proposed Project would be provided from the Inyokern Community Services District or from an on-site well.

Note the above is a worst case scenario of water usage during construction, as noted above, ground disturbance will be minimal, and the use of disintegrated gravel and soil stabilizer on those areas affected will reduce the need for water.

Operations and Maintenance

Water required for proposed Project operations would be provided by the Inyokern CSD as the primary supply source, following annexation to the District, with two on-site backup wells and approximately 388,000 gallons of on-site dual-tank buffer storage providing Tier III reliability redundancy. Based on the Project's hydraulic calculations reviewed by the Inyokern CSD, the CSD identified the following preliminary operational water demand estimates: average day demand of approximately 40,430 gallons per day (gpd); maximum day demand of approximately 60,645 gpd; and peak hour demand of approximately 101,075 gpd. Cooling tower makeup water

is the largest demand component at approximately 28,500 gpd. Potable domestic and sanitary uses account for approximately 1,900 gpd, and irrigation and landscaping account for approximately 500 gpd. Total average day demand across all uses is approximately 40,430 gpd. The CSD also identified a fire flow requirement of 3,000 gallons per minute at 20 psi residual pressure for a minimum duration of four hours. Total annual site water use is estimated at approximately 36.83 to 49.10 acre-feet per year (approximately 12 to 16 million gallons per year). The cooling system design uses Inyokern area ASHRAE 0.4% design conditions of approximately 107°F dry bulb and 71°F wet bulb and incorporates dual chilled-water plants with air-cooled chillers in an N+1 configuration, adiabatic towers handling approximately 20 percent of heat rejection, reverse osmosis and/or softening treatment skids, and an integrated air-side economizer for free-cooling during favorable ambient conditions. As conditions of the CSD will-serve letter, the following water conservation measures are required: minimum cycles of concentration of 5.0 on cooling towers; conductivity controllers; side-stream filtration; and drift eliminators. A Water Efficiency Plan must be submitted to the CSD prior to issuance of building permits, and a water audit is required within 12 months of initial occupancy. Prior to commencement of construction, the Applicant is required to execute a Water Service Agreement and a Sewer Service Agreement with the Inyokern CSD, and must provide the CSD with 90-day written notice prior to the Lead Agency public hearing.

Water Sources

The Project has received a Water and Sewer Service executed Will Serve letter from the Inyokern Community Services District (CSD) dated April 2, 2026, confirming sufficient water and sewer service capacity is available to serve the Project's estimated construction and operational water demand, subject to conditions identified in the letter (included as an Appendix to this Application). The Project proponent proposes water provided by the Inyokern CSD as the primary source of water for the Project.

As noted, the IWVGB is currently in overdraft with a current loss of storage of approximately 25,000 AFY and the amount of outflows exceeds the natural inflows into this basin by an approximate factor of 400 percent (IWVGA, 2020). Overdraft is not a result of decreased recharge as natural recharge today is nearly the same as it was prior to any development over a century ago. Instead, the overdraft is a result of the amount of groundwater that is extracted for various purposes in the basin which far exceeds the amount of natural recharge that flows into the basin. An analysis of the water supply, basin restrictions, impacts, and mitigation is provided in Section 4.18, Utilities and Service Systems, of this Application.

The Inyokern CSD has confirmed, through an executed Will Serve Letter dated April 2, 2026, that the District has sufficient water supply capacity to serve the Project's estimated operational demand within its existing allocations under the IWVGA Groundwater Sustainability Plan (GSP). The GSP, adopted January 16, 2020 by the IWVGA Board, establishes annual groundwater pumping allocations for all pumpers in the Basin and requires augmentation fees when allocations are exceeded; these fees fund basin improvement projects designed to bring the Basin toward sustainable yield. The Project's total annual water demand of approximately 36.83 to 49.10 AFY falls within the CSD's confirmed service capacity and represents approximately

0.185% of the projected 2040 basin extraction of 26,511 AFY (per the Water Supply Assessment).

The IWVGB is designated as critically overdrafted under SGMA, and the Indian Wells Valley Groundwater Authority's Groundwater Sustainability Plan establishes annual pumping allocations and an augmentation fee program designed to manage basin-wide extraction toward sustainable yield by 2040. The Project proponent is required under Mitigation Measure MM 4.10-2 to comply with all applicable GSP restrictions, including annual pumping allocations and payment of augmentation fees. Mitigation Measure MM 4.10-3 requires verification of the water source prior to issuance of building and/or grading permits. With implementation of MM 4.10-2 and MM 4.10-3, the Project's water demand would operate within the GSP's adaptive management framework and would not impede the Basin's path to sustainable yield. The Project's incremental contribution would therefore be less than significant with mitigation.

The Project would result in an increase in impervious surfaces on the Site from the equipment foundations as well as the operations and maintenance building and energy storage facility. Landscaping and natural vegetation areas consisting of approximately 26.4 acres (53% of the total Project Site) in landscaping and natural vegetation areas and access roads consisting of approximately 3.2 acres (6% of the total Project Site) would not be paved. Access roads would be constructed of compacted earthen or gravel materials which are pervious. Although the building foundations are impervious, stormwater would infiltrate into the surrounding pervious ground surfaces. The subtransmission line would be installed either belowground or aboveground; materials installed aboveground would not cover a large surface area and would therefore not substantively interfere with groundwater recharge. Therefore, the Project would leave large areas of pervious surfaces intact that would continue to absorb stormwater runoff and would thus not result in a significant reduction of groundwater infiltration rates.

Groundwater Supply:

As analyzed above, the CSD has confirmed sufficient capacity to serve the Project within its GSP allocations. The Project's water efficiency design features (minimum 5.0 cycles of concentration, Title 24 compliance, MAWA-compliant landscaping) reduce demand to the minimum operationally feasible level. Compliance with Mitigation Measures MM 4.10-2 (GSP compliance) and MM 4.10-3 (water source verification) ensures the Project operates within the Basin's adaptive management framework. Impacts would therefore be less than significant with mitigation.

Groundwater Recharge:

The Project would have a less than significant impact on groundwater recharge at the Site. The large proportion of pervious surfaces retained during Project operation, combined with the limited surface area of aboveground infrastructure, would not result in a significant reduction of groundwater infiltration rates.

Conclusion:

According to the Water Supply Assessment (WSA) (Appendix E.3): This [The] WSA has provided the data and analysis needed to verify that a sufficient Project water supply is physically

available (Section 3.1) and that the Project water supply is in accord with SB 610's normal year/dry-year/multiple-dry year requirements, sufficient (Section 3.2). The maximum water demand for this Project is estimated at 49.10 acre-feet/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. This conclusion is based on the fact that maximum water demand for this Project is estimated at 49.10 acre-feet (16 MG)/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. Compliance with the DWR Guidelines for the Project is included in Appendix C [of the WSA]. It is recommended that the County of Kern conclude that the proposed water supplies for the Project are sufficient to meet the projected Project water demand.

Mitigation Measures: Implementation of MM 4.10-2 and MM 4.10-3 would be required (see Section 4.10.4).

Level of Significance: With implementation of MM 4.10-2 and MM 4.10-3, impacts would be *less than significant*.

Impact 4.10-3: Would the Project would substantially alter the existing drainage patterns of the Site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner than would result in substantial erosion and/or sedimentation on-Site or off-Site.

Construction

Required grading activities for the proposed Project would alter existing on-site drainage patterns and flow paths and could alter the way that stormwater flows on-site during major events. These changes could concentrate flows and thus, result in increased erosion of existing soils on-site and subsequent sedimentation downstream. Further, the impervious surfaces introduced to the Site due to development of the Project would generate additional stormwater runoff on Site, which could exacerbate potential erosion and sedimentation on Site or downstream.

As described above, the proposed Project would implement a SWPPP per MM 4.7-3 that would require preservation of existing vegetation and topography to the maximum extent feasible, as well as include erosion and sediment control BMPs designed to prevent erosion and sedimentation from occurring during Project construction. Compliance with the Kern County Grading Code requires erosion prevention measures be implemented.

Operation

With regard to erosion and sedimentation during Project operation caused by increased runoff from impervious surfaces, large amounts of pervious ground surface would remain during Project operation that would continue to absorb the majority of surface flows. Further, Mitigation Measure MM 4.10-1 would require the completion of a hydrologic study and final drainage plan for the proposed Project prior to the issuance of a grading permit; the plan would demonstrate that the Project Site has been designed to minimize potential increases in runoff. Minimization of runoff increases could require inclusion of a retention basin on-site to capture high storm flows. Any stormwater management features would be consistent with existing regulatory requirements and

would minimize any erosion or sedimentation to less than significant levels. With implementation of Mitigation Measures MM 4.7-3 and MM 4.10-1, impacts would be less than significant.

Mitigation Measures: Implementation of MM 4.7-3 and MM 4.10-1 would be required (see Section 4.10.4; see Section 4.7, *Geology and Soils*, for text of Mitigation Measure MM 4.7-3).

Level of Significance: With implementation of Mitigation Measures MM 4.7-3 and MM 4.10-1, impacts would be *less than significant*.

Impact 4.10-4: Would the Project would substantially alter the existing drainage patterns of the Site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would substantially increase the rate or amount of surface runoff which would result in flooding on- or off-Site.

Construction

As discussed under Impact 4.10-3 above, grading and installation of Project facilities would alter existing on-site drainage patterns and flow paths. This could cause localized flooding during major events along the margins of the Project area, or within the Project area, depending upon how stormwater is managed under final Project design.

Operation

During operation of the Project, large amounts of pervious ground surface would remain on-site that would continue to absorb the majority of surface flows. In addition, MM 4.10-1 would require the preparation of a final hydrologic study and drainage plan prior to issuance of a grading permit that would detail the design and implementation of any necessary stormwater control features on-site that would ensure runoff is not substantially increased by the proposed facilities. MM 4.10-1 would also require that grading for the Project facilities does not alter the ground surface such that the extent of flooding during flood events is substantially increased. Therefore, impacts related to flooding would be less than significant.

Mitigation Measures: Implementation of MM 4.10-1 would be required.

Level of Significance after Mitigation: With implementation of MM 4.10-1, impacts would be *less than significant*.

Impact 4.10-5: Would the Project would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Construction

The Project Site is located in a remote, rural region with no existing or planned stormwater infrastructure. There are no existing stormwater drainage systems on the Project Site, and no stormwater drainage systems are proposed as part of the Project. The Project would be required to adhere to Kern County Public Works Department stormwater requirements, which include

measures to address stormwater controls on both management of runoff volume and water quality, including controlling erosion and protection of water quality of stormwater runoff.

Operation

During operation and maintenance, most of the Project Site would remain as pervious surfaces thus allowing infiltration of the runoff produced by the new minor impervious surfaces. The Project would not exceed the capacity of any existing or planned infrastructure, and the implementation of MM 4.10-1 would minimize potential increases in stormwater flow and other Project-induced changes to drainage patterns to less than significant levels.

Mitigation Measures: Implementation of MM 4.10-1 would be required.

Level of Significance: With implementation of MM 4.10-1, impacts would be *less than significant*.

Impact 4.10-6: In flood hazard, tsunami, or seiche zones, would the Project risk release of pollutants due to Project inundation.

Construction

During construction, hazardous materials present on-site (fuels, lubricants, concrete washout) could be mobilized by a flood event and released as pollutants. Implementation of MM 4.9-1 would require a Hazardous Materials Business Plan that would ensure safe handling of hazardous materials on-site and provide the means for prompt cleanup in the event of an accidental hazardous material release. Additionally, the design requirement in MM 4.10-1(d) for one foot of freeboard above calculated maximum flood depths for all structures and carports within the 100-year floodplain would reduce the risk of flood inundation reaching stored materials.

Operation

During Project operation, the Project Site is located well inland and far from the ocean or any enclosed or semi-enclosed water body such that there would be no potential threat from tsunami or seiche hazards. Therefore, while the Project Site is located within a 100-year flood zone, based on the characteristics of the Project and the location, the Project would have a less than significant potential to release pollutants from flooding, tsunamis, or seiche waves with the implementation of MM 4.9-1.

Mitigation Measures: Implementation of MM 4.9-1 and MM 4.10-1 would be required (see Section 4.9, *Hazards and Hazardous Materials*, for full text of Mitigation Measure MM 4.9-1).

Level of Significance: With implementation of MM 4.9-1 and MM 4.10-1, impacts would be *less than significant*.

Impact 4.10-7: Would the Project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Construction

As noted above, the Project Site is located within the jurisdiction of the Lahontan Regional Water Quality Control Board (Lahontan RWQCB, Region 6) and is subject to the applicable requirements of the Basin Plan administered by the RWQCB in accordance with the Porter-Cologne Water Quality Control Act. The proposed Project would implement a SWPPP, per Mitigation Measure MM 4.7-3, that would include BMPs designed to protect waters and drainages, within the Basin Plan, during Project construction. MM 4.10-1 would require the preparation of a final hydrologic study and drainage plan prior to issuance of a grading permit that would detail the design and implementation of any necessary stormwater control features consistent with the goals of the Basin Plan. These required BMPs and drainage control requirements would not conflict with or obstruct implementation of the Basin Plan and the potential impacts would be less than significant.

Operation

The Project is located in the Indian Wells Valley Groundwater Basin and would be subject to the requirements of the IWVGA Groundwater Sustainability Plan (GSP) adopted on January 16, 2020. An analysis of the water supply, basin restrictions, impacts, and mitigation is provided in Section 4.18, Utilities and Service Systems, of this Application. Implementation of MM 4.10-2 and MM 4.10-3 would ensure that the Project's water usage complies with the GSP — including adherence to annual pumping allocations and payment of augmentation fees where applicable — and therefore would not conflict with or obstruct the implementation of the GSP.

Conclusion:

According to the Water Supply Assessment (WSA) (Appendix E.3): This WSA has provided the data and analysis needed to verify that a sufficient Project water supply is physically available (Section 3.1) and that the Project water supply is in accord with SB 610's normal year/dry-year/multiple-dry year requirements, sufficient (Section 3.2). The maximum water demand for this Project is estimated at 49.10 acre-feet/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. This conclusion is based on the fact that maximum water demand for this Project is estimated at 49.10 acre-feet (16 MG)/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. Compliance with the DWR Guidelines for the Project is included in Appendix C [of the WSA]. It is recommended that the County of Kern conclude that the proposed water supplies for the Project are sufficient to meet the projected Project water demand. (emphasis added)

Mitigation Measures: Implementation of Mitigation Measures MM 4.7-3 and MM 4.10-1 through MM 4.10-3 would be required (see Section 4.7, *Geology and Soils*, for full text of Mitigation Measure MM 4.7-3, restated in Section 4.10.4 below).

Level of Significance: With implementation of Mitigation Measures MM 4.7-3, MM 4.9-1, and MM 4.10-1 through MM 4.10-3, impacts would be *less than significant*.

4.10.4 Mitigation Measures

The following mitigation measures are required for hydrology and water quality: MM 4.10-1 (Hydrologic Study and Drainage Plan), MM 4.10-2 (GSP Compliance), and MM 4.10-3 (Water Source Verification). Full text of each measure follows Table 4.10-A. Table 4.10-A provides the CEC SPPE Appendix B Section (g)(14) compliance cross-reference.

Table 4.10-A CEC SPPE Appendix B, Section (g)(14) Compliance Cross-Reference

Ref.	Appendix B Requirement	Section / Table	Status
(A) Setting and Baseline Requirements			
(g)(14)(A)(i)	Describe the regional hydrologic setting, including watershed, basin boundaries, and surface water features	Section 4.10.1.1	✓ Addressed
(g)(14)(A)(ii)	Describe groundwater basin characteristics, beneficial uses, and existing management	Section 4.10.1.1	✓ Addressed
(g)(14)(A)(iii)	Describe existing water supply sources, water quality, and treatment	Section 4.10.1.2; Appendix E.3	✓ Addressed
(g)(14)(A)(iv)	Describe surface hydrology, drainage patterns, and flood hazard areas	Section 4.10.1.2; Appendix E.1	✓ Addressed
(g)(14)(A)(v)	Describe applicable groundwater sustainability plans and overdraft conditions	Section 4.10.1.1; Appendix E.3	✓ Addressed
(B) Impact and Disclosure Requirements			

(g)(14)(B)(i)	Assess Project water demand (construction and operation) and water supply reliability	Section 4.10.3, Impact 4.10-2; Appendix E.3	✓ Addressed
(g)(14)(B)(ii)	Assess impacts on groundwater levels, quality, and sustainable yield	Section 4.10.3, Impact 4.10-2; Appendix E.3	✓ Addressed
(g)(14)(B)(iii)	Evaluate stormwater management and drainage plan	Section 4.10.3, Impacts 4.10-3 through 4.10-5; Appendix E.1	✓ Addressed
(g)(14)(B)(iv)	Assess potential for water quality degradation from construction and operations	Section 4.10.3, Impact 4.10-1	✓ Addressed
(g)(14)(B)(v)	Evaluate compliance with applicable water quality control plans and GSP	Section 4.10.3, Impact 4.10-7; Section 4.10.2	✓ Addressed
(g)(14)(C)(ii)	Physical and chemical characterization of Project water supply sources	Section 4.10.5.1; MM 4.10-3 (HYD-3)	Supplement pending — prior to final engineering
(g)(14)(C)(iv)	Water mass balance and heat balance diagrams for average and maximum flow conditions	Section 4.10.5.2; MM 4.10-3 (HYD-3)	Supplement pending — prior to final engineering
(g)(14)(C)(vii)	Water mass balance and heat balance for maximum flow conditions	Section 4.10.5.2; MM 4.10-3 (HYD-3)	Supplement pending — prior to final engineering
(g)(14)(E)(ii)	Quantitative groundwater drawdown analysis by licensed professional geologist	Section 4.10.5.3; MM 4.10-3 (HYD-3)	Supplement pending — prior to final engineering
(g)(14)(E)(v)	Formal evaluation of alternative water supply sources and cooling technologies	Section 4.10.5.4; MM 4.10-3 (HYD-3)	Supplement pending — prior to final engineering

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(14). All criteria addressed in this chapter; full technical disclosure in Hydrology Study (Appendix E.1) and Water Supply Assessment (Appendix E.3) (filed as supporting exhibits to this Application).

MM 4.10-1 Prior to the issuance of grading and building permits, the Project proponent/operator shall complete a hydrologic study and final drainage plan designed to evaluate and minimize potential increases in runoff from the Project site. The study shall include, but is not limited to the following:

- a. A numerical stormwater model for the Project site and would evaluate existing and proposed (with Project) drainage conditions during storm events ranging up to the 100-year event.
- b. The study shall also consider potential for erosion and sedimentation in light of modeled changes in stormwater flow across the Project area that would result from Project implementation.
- c. The drainage plan would include engineering recommendations to be incorporated into the Project design and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the Project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding onsite or offsite.
- d. The final design of the solar arrays shall include one-foot of freeboard clearance above the calculated maximum flood depths for the PV carports and the finished floor of any permanent structures. Constructed building sites located within a 100-year floodplain shall be graded to direct potential flood waters without increasing the water surface elevations more than one foot or as required by Kern County's Floodplain Management Ordinance.
- e. The hydrologic study and drainage plan shall be prepared in accordance with the Kern County Grading Code and Kern County Development Standards, and approved by the Kern County Public Works Department prior to the issuance of grading and building permits.

Additionally, prior to issuance of grading permits or building permits, the Project operator shall submit an SWPPP to the Kern County Planning and Community Development Department and the Regional Water Control Board, that specifies best management practices to prevent all construction pollutants from contacting stormwater, with the intent of keeping all products of erosion from moving off site and into receiving waters. The requirements of the SWPPP shall be incorporated into design specifications and construction contracts. The SWPPP will include inspection, monitoring, and corrective action procedures, including routine

inspections, post-storm inspections, and documentation requirements for BMP performance and repair. Recommended BMPs for the construction phase may include the following:

- Stockpiling and disposing of demolition debris, concrete, and soil properly.
- Installation of a stabilized construction entrance/exit and stabilization of disturbed areas.
- Implementing erosion controls.
- Properly managing construction materials.
- Proper protections for fueling and maintenance of equipment and vehicles.
- Managing waste, aggressively controlling litter, and implementing sediment controls.

The final site plan design, drainage plan and SWPPP will be submitted for approval by the County of Kern and RWQCB. The final site plan design, drainage plan and SWPPP shall be prepared in accordance with the Kern County Grading Code, Kern County Hydrology Manual and policies related thereto and approved by the Kern County Engineering, Surveying and Permit Services Department and, if required, the RWQCB.

MM 4.10-2 The proposed Project proponent/operator would be required to comply with all applicable restrictions on groundwater use as applicable to the Indian Wells Valley Groundwater Authority's Groundwater Sustainability Plan for the Indian Wells Valley Groundwater Basin. During construction, operation, and decommissioning, the Project shall implement water conservation measures to the maximum extent feasible.

Prior to the issuance of grading or building permits, the Applicant shall submit final drainage plans and hydraulic calculations demonstrating compliance with Kern County drainage and floodplain requirements. The applicant shall implement the approved drainage controls during construction and operations and shall inspect stormwater facilities at least annually and after major storm events, documenting maintenance actions. Physical and chemical characterization of the Project's water supply sources (including the Inyokern CSD supply and on-site backup wells) will be submitted to the County and CEC prior to or concurrent with the completion of final engineering, consistent with Appendix B, Section (g)(14)(C)(ii). Water mass balance and heat balance diagrams for average and maximum flow conditions will be submitted with final engineering submittals, consistent with Appendix B, Section (g)(14)(C)(iv) and (vii). A quantitative groundwater drawdown analysis by a licensed professional geologist will be submitted to the County and CEC prior to or concurrent with the completion of final engineering, consistent with Appendix B, Section (g)(14)(E)(ii). A formal evaluation of alternative water supply sources and alternative cooling technologies per Appendix B, Section (g)(14)(E)(v) will also be submitted to the County and CEC as a supplement prior to or concurrent with final engineering.

MM 4.10-3 Prior to the issuance of a grading or building permit, written documentation shall be submitted to the Kern County Planning and Natural Resources Department that the Project proponent has verified the water source for Project construction and operation by one of the following methods:

- a. A will serve letter from the Inyokern Community Services District dated within 60 days of application for the grading or building permit; or
- b. A letter from the Indian Wells Valley Groundwater Authority dated within 60 days of application for the grading or building permit acknowledging that a new well drilled and developed within the Project boundaries, which is permitted by Kern County Public Health, can pump groundwater and state the amount of groundwater pumping allowed per year; or
- c. A letter from a water provider outside of the Basin, showing the source and amount of water and method of delivery to the Project Site.

MM 4.7-3 (Restated from Section 4.7, Geology and Soils): The construction contractor shall incorporate Best Management Practices consistent with National Pollutant Discharge Elimination System General Construction Permit Program for all construction projects that would not retain all stormwater onsite and the Kern County Grading Code. The Project proponent shall prepare an Erosion and Sedimentation Control Plan as well as a Stormwater Pollution Prevention Plan. The plan shall be prepared by a Qualified Stormwater Pollution Prevention Plan Developer and submitted for review and approval by the applicable Regional Water Quality Control Board. The Stormwater Pollution Prevention Plan Best Management Practices shall include, but not be limited to, the following:

- Scheduling to avoid construction during rain events to the maximum extent possible
- Preservation of existing vegetation and topography to the maximum extent practicable
- Stabilized construction entrances and exits
- Erosion control (including all pertinent temporary erosion control practices as specified in Chapter 17.28.140 of the Kern County Grading Code), such as mulching, temporary drains and gullies, sandbag barrier, geotextiles and mats, silt fences, brush or rock filters, earth dikes, straw bale barriers, and sediment traps
- Sediment control
- Waste management
- Good housekeeping
- Post-construction site stabilization

Prior to initial construction mobilization, preconstruction surveys shall be performed and sediment and erosion controls shall be installed in accordance with the approved Stormwater Pollution Prevention Plan. A copy of the approved Stormwater Pollution Prevention Plan shall be submitted to the Kern County Planning and Natural Resources Department.

MM 4.9-1 (Restated from Section 4.9, Hazards and Hazardous Materials): During the life of the project, including decommissioning, the Project operator shall prepare and maintain a Hazardous Materials Business Plan, as applicable, pursuant to Article 1 and Article 2 of California Health and Safety Code 6.95 and in accordance with Kern County Ordinance Code 8.04.030, by submitting all the required information to the California Environmental Reporting System at <http://cers.calepa.ca.gov/> for review and acceptance by the Kern County Environmental Health Services Division/Hazardous Materials Section. The Hazardous Materials Business Plan shall:

- Delineate hazardous material and hazardous waste storage areas
- Describe proper handling, storage, transport, and disposal techniques
- Describe methods to be used to avoid spills and minimize impacts in the event of a spill
- Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction and operation
- Establish public and agency notification procedures for spills and other emergencies including fires
- Include procedures to avoid or minimize dust from existing residual pesticides and herbicides that may be present on the site

The Project proponent shall ensure that all contractors working on the Project are familiar with the facility's Hazardous Materials Business Plan as well as ensure that one copy is available at the Project Site at all times. In addition, a copy of the accepted Hazardous Materials Business Plan from the California Environmental Reporting System shall be submitted to the Kern County Planning and Natural Resources Department for inclusion in the projects permanent record.

4.10.5 CEC SPPE Appendix B — Additional Water Resources Disclosure Requirements

This section provides the additional Water Resources disclosure information required by CEC SPPE Appendix B, Section (g)(14). This information supplements the CEQA impact analysis provided in Sections 4.10.1 through 4.10.4 above. Appendix B, Section (g)(14), requires physical and chemical characterization of water supply sources, water mass balance and heat balance diagrams, a quantitative groundwater drawdown analysis, and a formal evaluation of alternative water supply sources and cooling technologies. Each of these requirements is addressed below.

Water Supply Source Characterization — Appendix B (g)(14)(C)(ii)

Physical and chemical characterization of the Project's water supply sources, including the Inyokern CSD supply and on-site backup wells, will be submitted to the CEC prior to or concurrent with the completion of final engineering. This characterization will include constituent concentrations before and after treatment for both supply sources, consistent with Appendix B, Section (g)(14)(C)(ii). The Inyokern CSD has confirmed sufficient water service capacity via the will-serve letter dated April 2, 2026. Source water quality data will be compiled from the CSD and from well testing results for the on-site backup wells prior to final engineering submittals.

Consistent with Appendix B, Section (g)(14)(C)(vi), the Project's water supply does not involve any water transfers or exchanges requiring third-party approvals or agency agreements. The Inyokern CSD provides water directly from the Indian Wells Valley Groundwater Basin through its existing infrastructure, and no inter-basin transfers, water exchanges, or imported supply arrangements are associated with this Project.

According to the Water Supply Assessment (WSA) (Appendix E.3): This WSA has provided the data and analysis needed to verify that a sufficient Project water supply is physically available (Section 3.1) and that the Project water supply is in accord with SB 610's normal year/dry-year/multiple-dry year requirements, sufficient (Section 3.2). The maximum water demand for this Project is estimated at 49.10 acre-feet/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. This conclusion is based on the fact that maximum water demand for this Project is estimated at 49.10 acre-feet (16 MG)/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. Compliance with the DWR Guidelines for the Project is included in Appendix C [of the WSA]. It is recommended that the County of Kern conclude that the proposed water supplies for the Project are sufficient to meet the projected Project water demand.

Water Mass Balance and Heat Balance — Appendix B (g)(14)(C)(iv) and (g)(14)(C)(vii)

Water mass balance and heat balance diagrams for average and maximum flow conditions will be submitted with final engineering submittals, consistent with Appendix B, Section (g)(14)(C)(iv) and (vii). The diagrams will reflect the Project's dual chilled-water plant design with air-cooled chillers in an N+1 configuration, adiabatic towers handling approximately 20 percent of heat rejection, and reverse osmosis and/or softening treatment skids. These submittals will be prepared as part of final engineering and provided to the County and CEC as a supplement to this Application prior to or concurrent with completion of final engineering.

Groundwater Drawdown Analysis — Appendix B (g)(14)(E)(ii)

A quantitative groundwater drawdown analysis by a licensed professional geologist, evaluating the effects of Project well pumping on neighboring wells within 0.5 mile and on groundwater contaminant migration, will be submitted to the County and CEC prior to or concurrent with the completion of final engineering, consistent with Appendix B, Section (g)(14)(E)(ii). The analysis

will reflect the Project's two on-site backup wells and will assess potential drawdown effects on the four identified nearby monitoring and supply wells described in Section 4.10.1.2 above.

Alternative Water Supply and Cooling Technology Evaluation — Appendix B (g)(14)(E)(v)

A formal evaluation of alternative water supply sources and alternative cooling technologies per Appendix B, Section (g)(14)(E)(v) will be submitted as a supplement to this Application prior to or concurrent with final engineering. This evaluation will assess the feasibility and comparative environmental benefit of alternative supply sources beyond the Inyokern CSD and on-site wells, as well as alternative cooling configurations, taking into account the Project's ASHRAE 0.4% design conditions of approximately 107°F dry bulb and 71°F wet bulb.

Key Analytical Assumptions and References — Appendix B (g)(14)(E)(vii)

Consistent with Appendix B, Section (g)(14)(E)(vii), the following table summarizes the key assumptions, evidence, and references used in the water resources analysis contained in this chapter. All calculations are documented in the supporting technical studies cited below.

Table 4.10-B Key Analytical Assumptions and References — Water Resources

Parameter Assumption /	Value Used	Source
Pre-development runoff C value	0.1 (unimproved area)	Kern County Hydrology Manual; Hydrology Study (Appendix E.1)
10-year, 5-day design storm depth	2.66 inches	NOAA Atlas 14 Volume 6, Version 2; Kern County Hydrology Manual
Average impervious area fraction (ai)	0.252	Conceptual site plan (Appendix A.1); Hydrology Study (Appendix E.1)
Total development drainage area	41.2 acres	Conceptual site plan (Appendix A.1)
Post-development retention basin design volume	2.2 acre-feet	Calculated per Kern County Hydrology Manual formula; Hydrology Study (Appendix E.1)

Manning's n (floodplain)	0.035	CivilD guidance; Hydrology Study (Appendix E.1)
Flood modeling software	CivilD (rainfall-runoff); HEC-RAS (flood depth/velocity)	Kern County Hydrology Manual; Hydrology Study (Appendix E.1)
Design flood event (floodplain analysis)	100-year, 24-hour	FEMA Zone A requirements; Kern County Floodplain Management Ordinance
Base flood elevation design assumption	1.0 ft above existing/finished grade	FEMA Floodplain Map Zone A requirements; Hydrology Study (Appendix E.1)
IWVGB natural recharge rate	~7,650 AFY	IWVGA Groundwater Sustainability Plan (January 2020)
IWVGB current overdraft (loss of storage)	~25,000 AFY	IWVGA Groundwater Sustainability Plan (January 2020)
Construction water demand (total)	~27 to 34 acre-feet over ~48-month construction period	Water Supply Assessment (Appendix E.3)
Operational average day demand	~40,430 gpd (executed WSL, April 2, 2026)	Inyokern CSD will-serve letter (April 2, 2026); Water Supply Assessment (Appendix E.3)
Cooling system design conditions	ASHRAE 0.4%: ~107°F dry bulb / 71°F wet bulb	Water Supply Assessment (Appendix E.3)
Groundwater depth at Project Site	~300 ft below ground surface (DWR data)	CDWR well records; Soil and Geology Report (Appendix K.1)

Source: Hydrology Study (Appendix E.1); Water Supply Assessment (Appendix E.3); IWVGA Groundwater Sustainability Plan (2020); NOAA Atlas 14 Volume 6, Version 2; Inyokern CSD will-serve letter (April 2, 2026).

4.10.6 Cumulative Setting, Impacts and Mitigation Measures

As described in the Cumulative Projects Analysis (Appendix N.3) of this Application, the cumulative setting for hydrology and water quality encompasses past, present, and reasonably foreseeable future projects located within the Indian Wells-Searles Valleys Hydrologic Unit and the Indian Wells Valley Groundwater Basin. The projects identified in Appendix N.3 form the basis of the cumulative analysis below. All Projects considered in the cumulative analysis are located within the Indian Wells-Searles Valleys HU and Indian Wells Valley Groundwater Basin.

The Inyokern Community Services District has provided a Water and Sewer Service Will Serve letter dated April 2, 2026, acknowledging sufficient water and sewer service capacity for both proposed Project construction and operation, subject to conditions including execution of Water Service and Sewer Service Agreements and submission of a Wastewater Characterization Report no later than 30 days prior to construction.

Similar to the proposed Project, all cumulative Projects would not discharge to waters of the United States due to their location within the Indian Wells Valley, which is a closed basin with no outlet to the Pacific Ocean. Regardless, Mitigation Measure MM 4.7-3 would require the Project to prepare and implement a SWPPP in accordance with County requirements. Similarly, all Projects that would not retain all runoff on-site would be required to prepare a SWPPP, which would include BMPs designed to prevent the mixture of sediment and other pollutants with stormwater and degrading water quality. Furthermore, the proposed Project would implement a Hazardous Materials Business Plan as part of Mitigation Measure MM 4.9-1 that would require appropriate handling of hazardous materials on-site to ensure they do not come into contact with stormwater and affect water quality. All other Projects in the vicinity that would handle hazardous materials would be required to comply with hazardous material regulations. Therefore, cumulative scenario impacts associated with water quality degradation would not be cumulatively considerable, and the Project would not contribute to a cumulative impact on water quality.

With respect to erosion, drainage, and flooding, the Project would implement Mitigation Measure MM 4.10-1, which would minimize direct impacts on erosion, drainage, and flooding. It is anticipated that other cumulative scenario Projects would be required to implement similar measures, in order to minimize erosion, drainage, and flooding related impacts. Additionally, drainage related impacts from cumulative scenario Projects would be primarily localized. Therefore, cumulative scenario impacts on erosion, drainage, and flooding are not anticipated to be cumulatively considerable, and the Project would not contribute to a cumulative impact on flooding, erosion, or drainage.

With respect to groundwater supply, the IWVGB is currently in overdraft at approximately 25,000 AFY of storage loss annually, a condition that predates the proposed Project and is the result of cumulative groundwater extraction throughout the valley over many decades. All Projects within the IWVGB that pump groundwater are subject to the IWVGA Groundwater Sustainability Plan and its annual pumping allocation and augmentation fee structure, which are designed to manage cumulative basin-wide extraction toward sustainable yield by 2040. Implementation of Mitigation Measures MM 4.10-2 and MM 4.10-3 would require the Project to comply with all GSP restrictions and to verify its water source prior to construction. Similarly, all other cumulative

Projects within the IWVGB would be subject to the same GSP requirements. The GSP's adaptive management framework is the regulatory mechanism by which cumulative basin-wide impacts are managed, and the Project's incremental contribution to that framework would be less than significant with mitigation.

According to the Water Supply Assessment (WSA) prepared for the Project (Appendix E.3): This WSA has provided the data and analysis needed to verify that a sufficient Project water supply is physically available (Section 3.1) and that the Project water supply is in accord with SB 610's normal year/dry-year/multiple-dry year requirements, sufficient (Section 3.2). The maximum water demand for this Project is estimated at 49.10 acre-feet/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. This conclusion is based on the fact that maximum water demand for this Project is estimated at 49.10 acre-feet (16 MG)/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. Compliance with the DWR Guidelines for the Project is included in Appendix C [of the WSA]. It is recommended that the County of Kern conclude that the proposed water supplies for the Project are sufficient to meet the projected Project water demand.

Mitigation Measures: Implementation of Mitigation Measures MM 4.7-3, MM 4.9-1, and MM 4.10-1 through MM 4.10-3 would be required (see Sections 4.7, Geology and Soils, and 4.9, Hazards and Hazardous Materials, for full text of Mitigation Measures MM 4.7-3 and MM 4.9-1, respectively).

Level of Significance: With implementation of Mitigation Measures MM 4.7-3, MM 4.9-1, and MM 4.10-1 through MM 4.10-3, cumulative impacts would be *less than significant*.

4.11 LAND USE AND PLANNING

Introduction

This section of the Application discusses the affected environment and regulatory setting for land use and planning associated with the Project. This section evaluates the Project's consistency with existing and planned land uses, applicable land use plans and regulations, parcel status, and agricultural land use considerations. The discussion is intended to address the applicable land use information requirements of the California Energy Commission (CEC) Small Power Plant Exemption (SPPE) Appendix B, Section (g)(3), and the significance thresholds established under the California Environmental Quality Act (CEQA; Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000–15387), including the Appendix G Environmental Checklist.

Relevant information from the Project Description (Section 3), Site Plan (Appendix A.1), Agriculture and Forestry Resources Assessment and associated mapping (Appendix D.3), Sensitive Receptor Map (Appendix B, Section (g)(10)(B)), Emergency Route and Public Services Map (Appendix B, Section (g)(7)), Airport Proximity Map and FAR Part 77 Analysis (Figure T-2), Thermal Plume Analysis (Appendix E.4), Transportation Facility Inventory Map (Figure T-4), Wildfire SRA and Fire Hazard Severity Zone Map (Appendix B, Section (g)(19)(A)/(B)), Notice Area Map and Parcel Owner Notice List (Appendix B, Section (a)(1)(E)), Conditional Use Permit/Specific Plan Amendment/Lot Line Adjustment application materials, and Phase I Environmental Site Assessment (Appendix J.1) are incorporated into this section.

SPPE Appendix B, Section (g)(3) requirements are addressed in §4.11.5 of this chapter.

CEC SPPE Appendix B — Section (g)(3) Applicability

20 CCR Division 2, Chapter 5, Appendix B, Section (g)(3) — Land Use (effective July 20, 2023)

(A) A discussion of existing land uses, general plan land use designations, and current zoning districts (including any overlay districts) at the site, land uses and land use patterns within one mile of the proposed site and within one-quarter mile of any project-related linear facilities. Include:

- (i) An identification of residential, commercial, industrial, recreational, scenic, agricultural, natural resource protection, natural resource extraction, educational, religious, cultural, and historic areas, and any other area of unique land uses;
- (ii) A discussion of any recent or proposed zone changes and/or general plan amendments noticed by an elected or appointed board, commission, or similar entity at the state or local level;

- (iii) Identification of all discretionary reviews by public agencies initiated or completed within 18 months prior to filing the application for those changes or developments identified in subsection (g)(3)(A)(ii); and
- (iv) Legible maps of the areas identified in subsection (g)(3)(A) potentially affected by the project, on which existing land uses, jurisdictional boundaries, general plan designations, specific plan designations, and zoning have been clearly delineated.

(B) A discussion of the compatibility of the proposed project with present and expected land uses, and conformity with any long-range land use plans and policies adopted by any federal, state, regional, or local planning agencies. The discussion shall identify the need, if any, for land use decisions by another public agency or as part of the commission's decision that would be necessary to make the project conform to adopted federal, state, regional, or local coastal plans, land use plans, or zoning ordinances. Examples of land use decisions include: general plan amendments, zoning changes, lot line adjustments, parcel mergers, subdivision maps, Agricultural Land Conservation Act contracts cancellation, and Airport Land Use Plan consistency determinations.

(C) A discussion of the legal status of the parcel(s) on which the project is proposed. If the proposed site consists of more than one legal parcel, describe the method and timetable for merging or otherwise combining those parcels so that the proposed project, excluding linears and temporary laydown or staging area, will be located on a single legal parcel. The merger need not occur prior to a decision on the Application but must be completed prior to the start of construction.

(D) A map at a scale of 1:24,000 and written description of agricultural land uses found within all areas affected by the proposed project. The description shall include:

- (i) Land classifications as shown on the California Department of Conservation's Farmland Mapping and Monitoring Program's Important Farmland maps, crop types, irrigation systems, and any special cultivation practices;
- (ii) Whether agricultural land affected by the project was historically classified Farmland as defined by the California Department of Conservation (Prime Farmland, Farmland of Statewide Importance, or Unique Farmland) as specified in Public Resources Code section 21060.1; and
- (iii) Direct, indirect, and cumulative effects on agricultural land uses. If the proposed site or related facilities are subject to an Agricultural Land Conservation contract, provide a written copy and a discussion of the status of the expiration or canceling of such contract.

All Section (g)(3) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.11.1–4.11.4. The Appendix B supplemental disclosure is provided in Section 4.11.5. A cross-reference table mapping each Appendix B criterion to its

location in this document is provided in Table 4.11-16, immediately preceding Section 4.11.5.

4.11.1 Environmental Setting

Regional Setting

The Project Site is located in the unincorporated community of Inyokern in northeastern Kern County, within the Indian Wells Valley in the western Mojave Desert. The Project area is within a desert valley setting characterized by relatively flat topography, broad open views, transportation corridors, utility infrastructure, airport-related land uses, scattered rural residential development, and vacant or undeveloped land.

Land uses in the broader region include vacant land, solar energy development, utility facilities, highway-oriented commercial development, low-density residential uses, airport-related uses, and public service facilities associated with the community of Inyokern. The Project area is accessible from SR-178 and Brown Road, with HWY 395 providing a major regional north-south transportation corridor immediately east of the Project vicinity.

Local Setting

As indicated above, the project is located in the eastern high desert part of Kern County in the unincorporated community of Inyokern as shown in **Figure 3-1, Project Site Vicinity**.

The Project Site is located within Section 29, Township 26 South, Range 39 East, Mount Diablo Base and Meridian (MDB&M). Specifically, the Project Site is located between United States Route 395 (US 395) to the east and North Brown Road to the west. The data center is located north of Inyokern Road (State Route 178 [SR 178]) while the SCE substation and aboveground transmission lines are located south of Inyokern Road (State Route 178 [SR 178]). US 395 lies east of the project site. The proposed project-related subtransmission line route would extend south from the Project Site across SR-178 and east along W. Graff Avenue to a proposed Southern California Edison (SCE) point interconnection proximate to the existing Inyokern Substation which is north of SR 178.

Existing Land Uses Within One Mile of the Project Site

Land uses within one mile of the Project Site consist primarily of vacant and undeveloped land, transportation corridors, utility and infrastructure land uses, solar energy development, limited commercial development, airport-related land uses, scattered rural residences, and public service uses. More specifically, the one-mile study area includes the following general land use categories:

- Residential uses consisting of scattered rural single-family residences west of Brown Road and within the developed portions of Inyokern.

- Commercial uses consisting of highway-oriented retail and service commercial development south of SR-178, including fuel sales, convenience retail, hardware sales, and outdoor storage.
- Industrial, utility, and infrastructure uses consisting of the proposed industrial data center site, the existing SCE Inyokern Substation and point of interconnection area, the RB Inyokern Solar Project, the Inyokern Airport vicinity, and the SR-178 and US 395 transportation corridors.
- Public and institutional uses consisting of Inyokern Elementary School and State Preschool and Kern County Fire Station 83.
- Open land and agricultural-related classifications consisting of vacant desert land and land mapped as Nonagricultural or Natural Vegetation, Semi-agricultural/Rural Commercial Land, and other disturbed or undeveloped land, as shown on Figure FMMP-1 (Appendix D.3).

No scenic corridors, religious institutions, cultural resource sites, or historic areas were identified within the one-mile study area.

Land uses within one-quarter mile of the proposed linear facility corridor

Land uses within one-quarter mile of the proposed linear facility corridor consist primarily of SR-178 roadway right-of-way, West Graff Avenue, vacant desert land, the SCE point of interconnection/substation area, utility infrastructure, and scattered developed lots in the Inyokern community. Based on the available mapping and technical studies, no land uses within the 0.25-mile corridor are considered incompatible with the proposed overhead subtransmission line corridor improvements.

The Transportation Facility Inventory Map (Figure T-4) identifies an existing natural gas distribution pipeline along the SR-178 right-of-way within the corridor area; no project interaction with this pipeline is anticipated. Natural gas service feasibility has been evaluated at a screening level by PG&E which indicated that the Project can be served from a nearby transmission main and that the requested load is feasible. Although natural gas service is available and was evaluated, it was not selected as the primary redundancy approach for the Project. Any limited natural gas service needs would be finalized during utility engineering and provider review; noting, however, that due to earthquake risk the Applicant does not intend to rely on natural gas for IT-critical systems.

- **Southern Perimeter:** The Project Site is bounded by SR-178 along the southern perimeter. A Chevron gas station and convenience store is located at the southern boundary area (APN 084-010-45), and commercial uses including Ace Hardware and Storage Facility are located across SR-178 to the south.
- **Western Perimeter:** The Project Site is bounded by Brown Road along the western perimeter. Commercial, light industrial, and scattered residential development are located

west of Brown Road. The nearest residential uses are located approximately 500 feet west of the Project Site.

- **Northern Perimeter:** The Project Site is bounded by the RB Inyokern Solar Project along the northern perimeter. A 100-foot wide west-east access easement, of which a larger approximately 138-foot wide area has been disturbed, is located between the solar facility and the Project Site.
- **Eastern Perimeter:** The Project Site is bounded by 18.76 acres of undeveloped, vacant land along the eastern perimeter (APN 084-010-42). Beyond this land are US 395 and associated transportation right-of-way improvements.
- **Proposed Utility Easement / Linear Facility:** A 30-foot wide utility easement is proposed from the southeastern corner of the Project Site, running south across SR-178 and east along W. Graff Avenue to a proposed SCE Point of Interconnection (POI) proximate to the existing Inyokern Substation (APN 352-502-23-1). The subtransmission line alignment is shown on the Notice Area Map (Appendix B, Section (a)(1)(E)) and Figure T-4.

TABLE 4.11-1: PROJECT SITE AND SURROUNDING LAND USES

	Existing Land Use	Existing Land Use Designations	Existing Zoning Classifications
Project Site	Undeveloped, Undisturbed Land	<i>Inyokern Specific Plan:</i> 7.2/2.5 (Service Industrial/Flood Hazard)	M-2 PD (Medium Industrial, Precise Development Combining)
North	Undeveloped, Undisturbed Land and Solar Facility	<i>Inyokern Specific Plan:</i> 1.1/2.5 (State or Federal Land/Flood Hazard)	OS (Open Space)
South	Undeveloped Land, Gas Station Convenience Store, Hardware Store with Outdoor Storage	<i>Inyokern Specific Plan:</i> 7.2/2.5 (Service Industrial/Flood Hazard)	C-2 PD (General Commercial – Precise Development Combining)
East	Undeveloped, Undisturbed Land	<i>Inyokern Specific Plan:</i> 7.2/2.5 (Service Industrial/Flood Hazard)	M-2 PD (Medium Industrial, Precise Development Combining)

West	North Brown Road and Single-Family Residences	<i>Inyokern Specific Plan:</i> 7.2/2.5 (Service Industrial/Flood Hazard)	C-H (Highway Commercial)

Sensitive Receptors

The Sensitive Receptor Map (Appendix B, Section (g)(10)(B)) confirms that no schools, hospitals, daycare facilities, skilled nursing facilities, or similar sensitive land uses are located within 0.25 mile of the Project Site or linear facility corridor. **Table 4.11-2** summarizes sensitive receptors identified within the study area.

Table 4.11-2: Sensitive Receptor Summary — RB Inyokern Data Center

Receptor	Address / Location	Distance from Site	Direction
Inyokern Elementary School and State Preschool	6601 Locust St, Inyokern	0.8 mile	Southwest
Inyokern Senior Center	1247 Broadway Ave. Inyokern	0.24 mile	Southwest
Kern County Fire Station 83	6919 Monache Mountain Ave, Inyokern	0.9 mile	West
Branch Health Clinic China Lake (NAWS)	NAWS China Lake	9.5 miles	East
Ridgecrest Regional Hospital ER	1081 N China Lake Blvd, Ridgecrest	10.2 miles	East
Bella Sera Skilled Nursing Facility	Ridgecrest	10.5 miles	East

Source: Sensitive Receptor Map (Appendix B, Section (g)(10)(B)); CA Dept. of Education; TRICARE; Ridgecrest Regional Hospital; Kern County Fire Dept.

Inyokern Community Services District

Project proposes to be annexed into the Inyokern Community Services District (Inyokern CSD) to obtain water and sewer service. The Inyokern CSD has contracted and/or developed water supplies sufficient to serve the Project's Projected demands within the District's planning horizon, subject to the conditions and conservation requirements stated herein. A water main extension is anticipated to provide adequate fire flow and domestic pressure to the Project site. All extensions

shall be designed and constructed at Applicant's sole cost per the Inyokern CSD standards. If the District requests oversizing beyond Project need, the parties shall execute a reimbursement agreement as described in Section 5.6 of the District's executed Will-Serve Letter (April 2, 2026). In respect to wastewater treatment, the Inyokern CSD preliminarily found existing trunk sewer facilities are to have sufficient capacity; however, upsizing of the lateral connection may be required based on final hydraulic modeling.

General Plan, Specific Plan, Zoning, and Land Use Plan Setting

The Land Use Element establishes policies for industrial development compatibility, orderly development, infrastructure planning, and protection of surrounding land uses. The Flood Hazard overlay designation reflects the site's location within a Special Flood Hazard Zone A per FEMA Flood Insurance Rate Map (FIRM) mapping; flood mitigation is addressed through the site grading plan and a Letter of Map Revision (LOMR) (Appendix B, Section (g)(7)). Refer to Appendix A.1 for the Site Plan and land use/zoning boundary mapping of the project vicinity.

The discussion in this section draws on the following regulatory authorities: (1) Kern County General Plan — Land Use, Open Space, and Conservation Element; (2) Inyokern Specific Plan; (3) Kern County Zoning Ordinance (Title 19), including Chapter 19.38 (M-2 Medium Industrial District), Chapter 19.56 (Precise Development Combining District), Chapter 19.81 (Outdoor Lighting — Dark Skies), and Chapter 19.104 (Conditional Use Permits); (4) Kern County Airport Land Use Compatibility Plan (ALUCP); (5) FAA 14 CFR Part 77; and (6) California Code of Regulations Title 20, Division 2, Chapter 5, Appendix B §§ (g)(3) and (g)(5)(B). Airport-related findings rely on Yorke Engineering LLC's Thermal Plume Analysis (January 2026 — Application Appendix E.4) as the controlling technical source for Project-to-airport distance, ALUCP Compatibility Zone designation, thermal plume height-to-Vcrit findings, and FAA Part 77 Form 7460-1 determination.

Table 4.11-3 provides a summary of the applicable regulatory framework for land use and planning. Detailed discussion of each authority follows.

Table 4.11-3: Applicable Regulatory Framework — Land Use and Planning

Level	Authority / Plan	Applicability to Project	Status
Federal			
Federal	FAA FAR Part 77 / 14 CFR §77	All structures <35 ft AGL — compliant. No FAA Form 7460-1 required.	✓ Addressed

State			
State	CEQA (PRC §21000 et seq.) / CEQA Guidelines Appendix G	Land use significance thresholds per Appendix G — all impacts less than significant.	✓ Addressed
State	CEC SPPE Appendix B §(g)(3) (20 CCR Div. 2 Ch. 5 App. B)	Primary information requirements framework for this section.	✓ Addressed
State	Williamson Act (Gov. Code §51282)	Site not under contract — no cancellation review required.	✓ Addressed
State	Timberland Production Zone (PRC §4526)	No TPZ designation on or adjacent to site — no impact.	✓ Addressed
State	CAL FIRE LRA / FHSZ (14 CCR §1280.01)	Site in LRA Non-VHFHSZ — §(g)(19)(C) supplemental requirements not triggered.	✓ Addressed
Local			
Local	Kern County General Plan — Land Use Element (Service Industrial/Flood Hazard)	Industrial data center consistent with designation. CUP required.	✓ Addressed
Local	Kern County Zoning Ordinance — M-2 PD (Medium Industrial, Precise Development)	CUP and discretionary review required to confirm compliance.	✓ Addressed
Local	Inyokern Specific Plan (SPA pending)	SPA to remove 90-ft ROW reservation. Pending County approval.	✓ Addressed

Local	Kern County ALUCP — Inyokern Airport (KIYK) Zone C	Zone C — industrial as designed compatible. No variance required.	✓ Addressed
Local	FEMA FIRM — Special Flood Hazard Zone A (Flood Hazard GP Overlay)	Addressed through site grading plan and LOMR. No land use compatibility impact.	✓ Addressed

Sources: FAA 14 CFR Part 77; CEQA (PRC §21000 et seq.); 14 CCR §15000 et seq.; 20 CCR App. B; Gov. Code §51282; PRC §4526; 14 CCR §1280.01; Kern County General Plan; Kern County Zoning Ordinance; Inyokern Specific Plan; Kern County ALUCP; FEMA FIRM.

Land Use Plan Designations

The Project Site is located in unincorporated Kern County and is subject to Kern County land use jurisdiction. The Kern County Zoning, Kern County General Plan and Inyokern Specific Plan designations of the Project Site are summarized in **Table 4.11-4, Project Assessor Parcel Numbers – RB Inyokern Data Center**, shows the APNs associated with the project.

TABLE 4.11-4: PROJECT ASSESSOR PARCEL NUMBERS – RB INYOKERN DATA CENTER

APN	Gross Acres (approx.)	Zoning	Kern County General Plan
			Inyokern Specific Plan
084-010-43	19.18	M-2 PD	7.2/2.5 (Service Industrial/Flood Hazard)
084-010-44	20.55	M-2 PD	7.2/2.5 (Service Industrial/Flood Hazard)
084-010-45	20.15	M-2 PD	7.2/2.5 (Service Industrial/Flood Hazard)
084-010-48	23.28	M-2 PD	7.2/2.5 (Service Industrial/Flood Hazard)
Total Gross Acres	83.16		

Zoning

Kern County Zoning Ordinance designates the Project Site as a M-2 PD (Medium Industrial, Precise Development Combining) within Zone Map 27-29. The Kern County Zoning Ordinance regulates the use of land. It lists certain allowed uses according to particular zoning districts.

Zoning districts that allow construction of multifamily dwelling units, commercial uses, or industrial uses are subject to Special Development Standards. More specifically, the Project Site is zoned M-2 PD which subjects the Project to Special Development Standards pursuant to the Kern County Public Works Development Standards which were updated on December 19, 2023 (SD Standards). The Development Standards and the standard details may be modified from time to time through policy or design directives issued by the Director of Public Works.

In respect to the Project, the SD Standards govern the design of streets, water systems, sanitary sewers, drainage, landscaping, environmental health, construction security, survey, traffic engineering, and includes requirements for the processing of sewer and drainage studies, improvement plans, and improvement agreements.

Kern County General Plan

The Project Site has a Land Use Element designation of 7.2/2.5 (Service Industrial/Flood Hazard) under the Kern County General Plan and the Inyokern Specific Plan which restricts development to light industrial, warehousing, and service commercial uses that can mitigate significant flood risks. Located in identified floodplains, these areas require strict adherence to Floodplain Management codes and Engineering Bulletins for safety.

Data Center

Permitted land Uses in 7.2 Service Industrial areas are generally intended for light industrial, service commercial, wholesaling, and distribution uses that do not create excessive noise or pollution. The **Overlay Hazard (2.5 Flood Hazard)** indicates a high risk of flooding (typically 100-year floodplains as identified by FEMA or DWR) and projects must comply with the Kern County Floodplain Management Code and may require elevation or flood-proofing of structures; **Drainage/Grading elements** of Site plans must adhere to Kern County Grading Code and Engineering Bulletin 11-02 (Sump Volume Requirements); and generally the projects must be designed so that infrastructure is not negatively impacted by potential flooding events.

Solar PV Facilities

According to the Kern County Zoning Ordinance Section 19.38.030 G, solar energy electrical generators, when not accessory to a permitted or conditionally permitted use, are permitted within the M-2 Zone District subject to the approval of a Conditional Use Permit (CUP). The proposed zoning classification of the project site are consistent with the current Inyokern Specific Plan Map Code designation, as solar energy-generating facilities are an allowable use under the 7.2 (Service Industrial) designation.

The proposed 1 MW solar photovoltaic (PV) facilities will be included in the Project's CUP application. CUPs are processed pursuant to the requirements of the Kern County Zoning Ordinance (KCZO), Chapter 19.104, Conditional Use Permits. Pursuant to Section 19.104.040 of the KCZO, the decision-making authority may approve or conditionally approve an application for a CUP if it can adopt all the following findings:

- The proposed use is consistent with the goals and policies of the applicable General or Specific Plan.
- The proposed use is consistent with the purpose of the applicable district or districts.
- The proposed use is listed as a use subject to a CUP in the applicable zoning district or districts or the use is determined to be similar to a listed conditional use in accordance with the procedures in Sections 19.08.030 through 19.0.080 of the KCZO.
- The proposed use meets the minimum requirements of the KCZO applicable to the use.
- The proposed use will not be materially detrimental to the health, safety, and welfare of the public or to property and residents in the vicinity.

Inyokern Specific Plan

The Land Use Element designates the Project Site as 7.2/2.5 (Service Industrial/Flood Hazard) under the Inyokern Specific Plan which is described below:

Land Use, Open Space, and Conservation Element of the Specific Plan (Chapter 1)

Properties designated as Service Industrial (Map Code 7.2) is for commercial or industrial activities which involve outdoor storage or the use of heavy equipment. These industries can be visually obtrusive and are not generally suited for locations next to residential uses.

- Goal 1:** To provide adequate industrial land to serve the immediate area.
- Goal 2:** To balance industrial and residential use so that residences are not adversely affected.
- Goal 3:** To promote economic strength without detriment to environmental quality.
- Policy 1:** Service industrial uses should not be located adjacent to residential development except as approved through the PD (Precise Development) process. The "Light Industrial" designation can act as a buffer between service industrial and residential uses. Industrial and residential sectors must be kept separate.
- Policy 2:** Industrial development must demonstrate the ability to provide adequate water, sewer and other public services.
- Policy 3:** Future industrial designations will not be approved unless it is shown that existing industrial land cannot meet the level of demand.
- Policy 4:** New development should be encouraged to locate on vacant industrial land.

- Policy 5:** Industrial development shall be encouraged on land south of the Inyokern Airport to minimize the potential noise and safety conflicts which may arise over Airport operation and expansion.
- Policy 6:** Industrial development within floodplain areas shall conform to the requirements of the Kern County Flood Hazard Ordinances.
- Policy 7:** Direct development away from II sensitive biological resource II areas unless effective mitigation can be implemented.
- Policy 8:** Protect from development those areas of potential archaeological significance.
- Measure A:** The County may require PD (Precise Development) overlay zoning for all industrially designated land within the Plan boundaries.
- Measure B:** The County shall require industrial developments and uses to meet the Special Development Standards as set forth in the Kern County Zoning Ordinance.
- Measure C:** Utility service to all new development shall be located underground.
- Measure D:** All new industrial subdivisions and, where applicable, PD (Precise Development) plans shall include provisions for standard street access, alleys where necessary, and sewer and water connections to the Inyokern CSD.
- Measure E:** All new industrial use shall meet the requirements of the Kern County Fire Department for fire flows, hydrants, access, and sprinklers.
- Measure F:** Any discretionary industrial project that disturbs property not previously developed/disturbed or is not substantially surrounded by urban density development, as determined by the Director of the Kern County Department of Planning and Development Services, shall require submittal of a biological survey for plants and animals as part of the application/permit process; said survey shall be completed in accordance with the most current guidelines prepared by the U.S. Fish and Wildlife Service and/or the State Department of Fish and Game. Any submittal shall also include mitigation measures satisfactory to the requirements of said agencies and the Kern County Department of Planning and Development Services.
- Measure G:** Any discretionary industrial development project that substantially disturbs property not previously developed or is not substantially surrounded by urban density development as determined by the Director of the Kern County Department of Planning and Development Services shall require submittal of an archaeological survey or a clearance as part of the application/permit process; said survey shall be completed in accordance with any guidelines supplied by the California Archaeological Inventory at California State University at Bakersfield. Any submittal shall also include mitigation measures satisfactory to the requirements of

said inventory and the Kern County Department of Planning and Development Services.

Airport Land Use Setting

The Project Site is located approximately 0.4 mile southeast of Inyokern Airport (KIYK), as measured by GIS from the project site centroid to the airport center (**Figure T-2**). The Thermal Plume Analysis (Appendix E.4) measures the distance to the nearest runway end as approximately 0.9 miles; both measurements confirm the Project is within the 4-mile threshold that triggers the Appendix B Section (g)(5)(B) airport analysis, which requires: (i) a map displaying the airport runway configuration, influence area, safety zones, and project site; (ii) a thermal plume analysis describing plume velocity; (iii) a discussion of conformance with applicable Airport Land Use Compatibility Plan policies; and (iv) copies of any FAA Form 7460-1 filings. Each of these requirements is addressed below.

The Project Site is within the airport planning/influence area and is located in Zone C of the Kern County Airport Land Use Compatibility Plan (ALUCP), which is the outer boundary of the Common Traffic Pattern Zone — Limited risk, aircraft at or below 1,000 AGL and frequent noise intrusion. Kern County has an approved Alternative Process for airport compatibility determinations adopted as the Kern County Airport Land Use Compatibility Plan (ALUCP) and is not required to have an Airport Land Use Commission. The approved process requires review by Kern County Planning and Natural Resources of the project and the Airport Operator with the adopted plan policies for each public use airport and military installations, as well as the Compatibility Criteria Table 2A, which details the permitted and restricted uses in each influence zone along with densities of people.

Zone C prohibits schools, hospitals, nursing homes and hazards to flights, and establishes the maximum density for “other uses” of 150 people per acre with 15% of the project site as open space, which includes parking lots. The Project use (industrial data center) and proposed staffing levels are consistent with the density and open space standards applicable to Zone C, as will be confirmed through the Kern County CUP review process.

The FAR Part 77 imaginary surfaces analysis confirms that all proposed project structures are less than 35 feet above finished grade, which is 115 feet below the horizontal surface limit (150 feet AGL) at the site, and no project structure falls within the approach surface zones of any KIYK runway. No FAA Form 7460-1 (Notice of Proposed Construction or Alteration) filing is required. The Project does not require a variance from County height limits and conforms with applicable ALUCP policies. See Figure T-2 for the complete FAR Part 77 analysis.

A quantitative thermal plume analysis was prepared by Yorke Engineering LLC (Appendix E.4, January 2026) using the Spillane methodology (Best et al. 2003) to evaluate whether project exhaust plumes could cause unacceptable turbulent conditions for light aircraft at Inyokern Airport. The analysis was conducted under worst-case calm wind conditions at both minimum (31°F) and maximum (102°F) ambient temperatures. The CEC significance threshold is a plume-averaged vertical velocity of 5.3 meters per second (m/s). Three emission source groups were analyzed: (1) forty diesel emergency generators (3 MW each, 40 units); (2) two hybrid cooling

towers (Series 3000, 4 cells each); and (3) twenty-eight air-cooled screw chillers (508T, 24 cells each). **Table 4.11-5** summarizes the results.

Table 4.11-5: Thermal Plume Analysis Results — Height to Critical Velocity (V_{crit})

Source	Units	Cells/Unit	Max Ht — Min Temp (ft)	Max Ht — Max Temp (ft)	Finding
Diesel Emergency Generators	5 (mod.)	1	116.3	119.7	Less than significant
Series 3000 Cooling Towers	1	4	125.5	125.5	Less than significant
508T Air-Cooled Screw Chillers	7 (mod.)	24	201.7	152.2	Less than significant
CEC significance threshold: $V_{crit} = 5.3$ m/s. Spillane methodology (Best et al. 2003). Worst-case calm wind, min (31°F) and max (102°F) ambient.					

Source: Thermal Plume Analysis, Yorke Engineering LLC, January 2026 (Appendix E.4). $V_{crit} = 5.3$ m/s (CEC significance threshold).

The maximum height at which the critical velocity threshold is reached — 201.7 feet aboveground under worst-case conditions — is well below any aircraft operating altitude over the Project Site. The Thermal Plume Analysis concludes that the Project would have a less than significant impact on aircraft in the region.

Chapter 4.17 Military Aviation of the ALUCP provides for compatibility policies to protect both the military installations: China Lake Naval Air Weapons Station (NAWS) (~9.5 miles from the site) and Edwards Air Force Base (AFB) (~60 miles from the site), as well as the Joint Service Restricted R-2508 Complex of military airspace. The policies require early notification of the installations as well as the complex of the project for consultation on impacts to the military mission. Conditions that Kern County normally includes for compatibility include dust control to ensure no impacts to testing flights and a frequency deconfliction measure to ensure coordination with the Frequency Deconfliction Office of each installation, as well as adherence to the Kern County Zoning Ordinance Dark Sky regulations.

The Wildfire SRA and Fire Hazard Severity Zone Map (Appendix B, Section (g)(19)(A)/(B)) confirms that the Project Site is located within the Local Responsibility Area (LRA) under Kern County Fire Department jurisdiction and carries a Non-Very High Fire Hazard Severity Zone (Non-VHFHSZ) designation under the Kern County 2025 FHSZ Update (SB 63). The nearest State Responsibility Area is approximately 3.0 miles to the west. No Very High Fire Hazard Severity Zone exists within 10 miles of the Project Site. Because the Project Site is not located within or adjacent to an SRA or VHFHSZ, the supplemental wildfire requirements of Appendix B, Section (g)(19)(C) are not triggered. See **Figure 4.11-1** below.

APPENDIX B 5(a)(19)(A)(B) — WTI DE FIRE: SRA & FIRE HAZARD SEVERITY ZONES



The Project Site is currently undeveloped and does not support active agricultural operations. Based on the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) 2022 Biennial Update (Kern County), the Project Site is mapped as

Nonagricultural or Natural Vegetation. **Table 4.11-6** summarizes the FMMP and related agricultural resource findings for the Project Site.

Table 4.11-6: Agricultural and Forestry Resource Findings — RB Inyokern Data Center

FMMP / Resource Classification	Present on Site?	Source
Prime Farmland	No	DOC FMMP 2022
Farmland of Statewide Importance	No	DOC FMMP 2022
Unique Farmland	No	DOC FMMP 2022
Farmland of Local Importance	No	DOC FMMP 2022
Williamson Act Contract	No	Kern Co. PLNR, 2026
Timberland Production Zone (TPZ)	No	CAL FIRE TPZ GIS, 2024
FMMP Site Designation	Nonagricultural or Natural Vegetation	DOC FMMP 2022

Sources: DOC FMMP 2022 Biennial Update; Kern County Planning and Natural Resources Department Williamson Act Boundary Map (March 2026); CAL FIRE TPZ GIS (2024); PRC §4526.

FMMP mapping is provided in Figure FMMP-1 (Appendix D.3). See **Figure 4.11-2** below.

Figure 4.11-2: Farmland Mapping and Monitoring Program (FMMP) Map

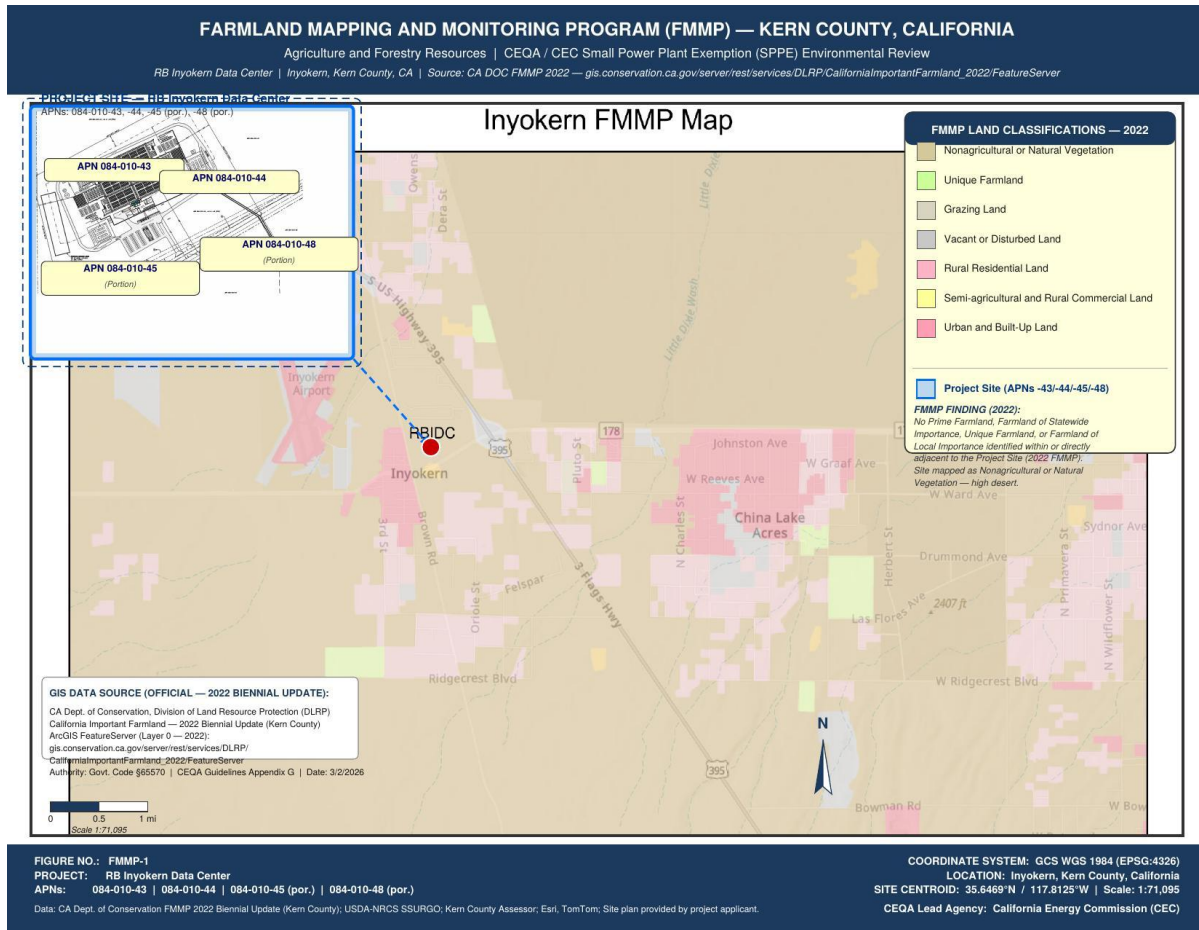


Figure 4.11-2: Farmland Mapping and Monitoring Program (FMMP) Map — Inyokern, Kern County (Source: CA Dept. of Conservation FMMP 2022 Biennial Update — Appendix D.3, Figure FMMP-1)

The Williamson Act Boundary Map (Figure AF-2, Appendix D.3), prepared by the Kern County Planning and Natural Resources Department (March 2026), confirms that the Project Site is not located within a Williamson Act Contract Area. The nearest Williamson Act contract land is located approximately 7.5 miles east of the Project Site, near Ridgecrest. The Project is not subject to Williamson Act cancellation requirements under Government Code Section 51282. See **Figure 4.11-3** below.

Figure 4.11-3: Williamson Act Boundary Map

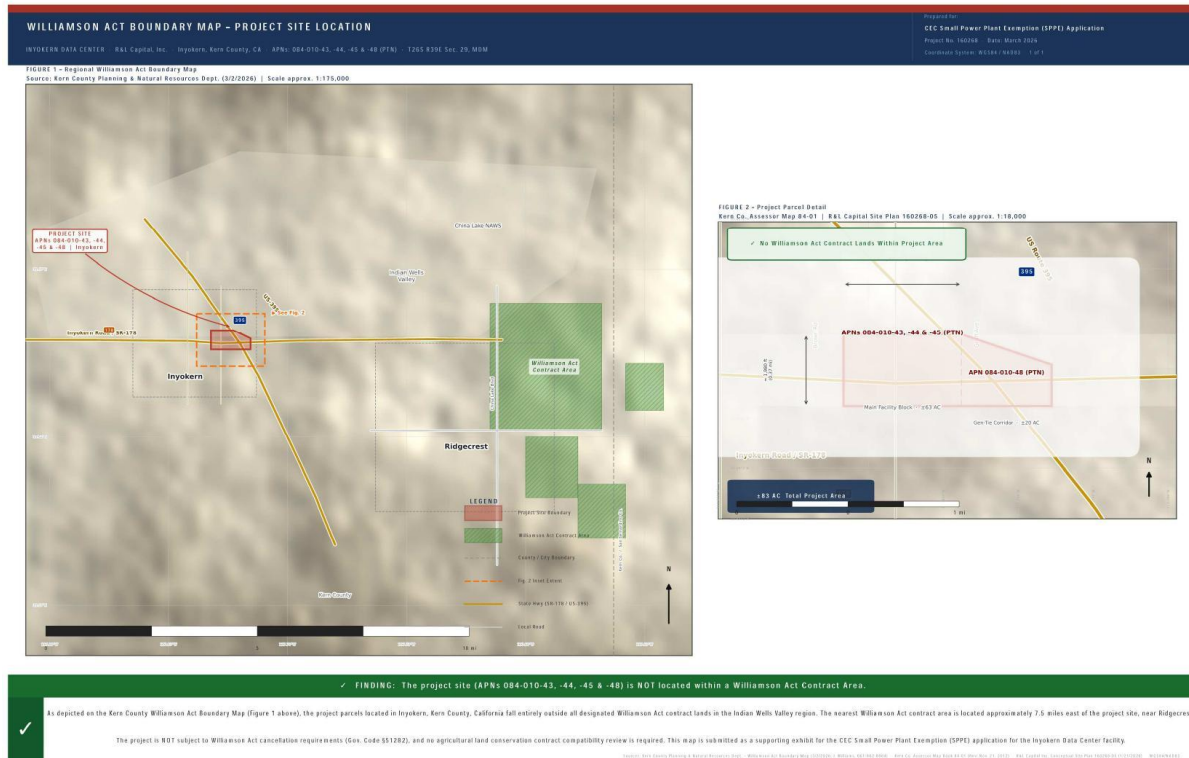


Figure 4.11-3: Williamson Act Boundary Map — Project Site Location (Source: Kern County Planning and Natural Resources Department, March 2026 — Appendix D.3, Figure AF-2)

The Timber Product Zone Map (Figure AF-3, Appendix D.3) and Timberland Production Zone Map (Figure AF-4, Appendix D.3), prepared using USFS Timber Zone data and CAL FIRE TPZ GIS (2024) under Public Resources Code Section 4526, confirm that the Project Site is not timberland, is not zoned for forest land use, and is not within a Timberland Production Zone. The site falls within the Non-Forest/Arid Zone (USFS Region 5 Pacific Southwest — Mojave/High Desert transition).

4.11.2 Regulatory Setting

State

Various state agencies have jurisdiction over local agencies and have plans and programs that apply to the proposed Project site. They include, but are not limited to, the Amended Kern Groundwater Authority Groundwater Sustainability Plan, Kern Integrated Regional Water Management Plan, Kern County Integrated Regional Water Management Plan, California Air

Quality Plans and related California State Implementation Plans, and CDFW recovery and habitat plans for Threatened and endangered species. Information on these plans and related laws and regulations, which are incorporated by reference, can be found in the *Regulatory Settings* elements of each of the subsections of Section 4.

California Environmental Quality Act

The Project is subject to CEQA (Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (14 CCR §15000 et seq.). The CEC is the lead agency for the SPPE application. The significance of land use and planning impacts is evaluated using the thresholds established in the CEQA Guidelines Appendix G Environmental Checklist Form, as reflected in the impact questions addressed in Section 4.11.3 below.

California Energy Commission SPPE Appendix B

Appendix B, Section (g)(3) (20 CCR Division 2, Chapter 5, Appendix B, effective July 20, 2023), requires the Applicant to provide: a discussion of existing land uses, general plan land use designations, and current zoning districts (including overlay districts) at the site and within one mile of the proposed site and one-quarter mile of any project-related linear facilities, including identification of residential, commercial, industrial, recreational, scenic, agricultural, and other unique land use categories; a discussion of any recent or proposed zone changes or general plan amendments noticed at the state or local level; identification of discretionary reviews initiated or completed within 18 months prior to filing; legible land use maps; a discussion of compatibility with present and expected land uses and conformity with long-range land use plans; a discussion of the parcel legal status and any required parcel consolidation prior to construction; and a description of agricultural land uses within all project-affected areas, including FMMP classifications, historical farmland status, and direct, indirect, and cumulative effects on agricultural land. This section and Section 4.11.5 have been prepared to address those requirements.

Williamson Act (Government Code §51282)

The California Land Conservation Act (Williamson Act) restricts conversion of agricultural land under contract. As confirmed by the Kern County Planning and Natural Resources Department Williamson Act Boundary Map (Figure AF-2, Appendix D.3), the Project Site is not subject to a Williamson Act contract. No cancellation review is required under Government Code Section 51282.

Timberland Production Zone (Public Resources Code §4526)

Public Resources Code Section 4526 restricts conversion of lands designated as Timberland Production Zones. As confirmed by the CAL FIRE TPZ GIS (2024) (Figures AF-3 and AF-4, Appendix D.3), no TPZ designation exists on or adjacent to the Project Site. No impact to timberland resources is anticipated.

CAL FIRE Fire Hazard Severity Zones (14 CCR §1280.01)

CAL FIRE designates Fire Hazard Severity Zones (FHSZ) in State Responsibility Areas (SRA) under 14 CCR Section 1280.01, effective April 1, 2024. The Kern County 2025 FHSZ Update (SB 63) establishes Local Responsibility Area (LRA) FHSZ designations. The Project Site is located in a LRA with a Non-VHFHSZ designation. The §(g)(19)(C) supplemental wildfire requirements are not triggered.

Land use and planning decisions within and adjacent to the project site are guided and regulated by the Kern County General Plan, Inyokern Specific Plan, and Kern County Zoning Ordinance. The Kern County General Plan contains goals, objectives, and policies and provides an overall foundation for establishing land use patterns. The Inyokern Specific Plan contains goals and policies particular to the Inyokern community. The Kern County ALUCP contains regulations and policies related to development located within airport influence areas of Kern County airports. For this land use impact analysis, this section lists all relevant goals, objectives, policies, and implementation measures related to the proposed project. The Zoning Ordinance contains regulations through which the General Plan's provisions are implemented.

Local

Kern County General Plan — Land Use Element

The Kern County General Plan Land Use Element provides the overall policy framework applicable to the Project Site. The Project Site has a Land Use Element designation of Service Industrial/Flood Hazard, which is intended to accommodate industrial and service-oriented development. The Land Use Element contains goals, policies, and implementation measures applicable to land use compatibility, orderly development, infrastructure planning, and protection of surrounding land uses. All policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Table 4.11-7 below draws on the following regulatory authorities: (1) Kern County General Plan — Land Use, Open Space, and Conservation Element; (2) Inyokern Specific Plan; (3) Kern County Zoning Ordinance (Title 19), including Chapter 19.38 (M-2 Medium Industrial District), Chapter 19.56 (Precise Development Combining District), Chapter 19.81 (Outdoor Lighting — Dark Skies), and Chapter 19.104 (Conditional Use Permits); (4) Kern County Airport Land Use Compatibility Plan (ALUCP); (5) FAA 14 CFR Part 77; and (6) California Code of Regulations Title 20, Division 2, Chapter 5, Appendix B §§ (g)(3) and (g)(5)(B). Airport-related findings rely on Yorke Engineering LLC's Thermal Plume Analysis (January 2026 — Application Appendix E.4) as the controlling technical source for Project-to-airport distance, ALUCP Compatibility Zone designation, thermal plume height-to-Vcrit findings, and FAA Part 77 Form 7460-1 determination.

Table 4.11-7: Applicable Kern County General Plan Land Use Element Provisions

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
Section 1.3 — Physical and Environmental Constraints					
Policy 1	Ensure new development is not sited on physically or environmentally constrained land — Map Codes 2.1 (Seismic Hazard), 2.2 (Landslide), 2.3 (Shallow Groundwater), 2.5 (Flood Hazard), 2.6–2.9 (Specific Plan constraints), 2.10 (Nearby Waste Facility), 2.11 (Burn Dump Hazard) — unless appropriate studies establish no unmitigated significant impact.	Site carries Service Industrial (7.2) designation with Flood Hazard (2.5) combining designation (FEMA SFHA Zone A). No Seismic Hazard (2.1) zone on Site per § 4.12; no Landslide (2.2) zone given flat terrain; Shallow Groundwater (2.3) not applicable — depth to groundwater ~300 ft per § 4.10 line 7532; Site is within Inyokern Specific Plan area but no 2.6–2.9 constraints identified; not within 1,320 ft of a solid waste disposal facility (2.10); no known burn dumpsite (2.11) per Phase I ESA. Flood hazard addressed via site grading plan and LOMR through CUP process. Geotechnical, hydrology, and drainage studies support no unmitigated significant impact. (App. §§ 1.9.10, 4.10.1.2 line 7532, 4.11.2, 4.11.3, 4.12; Appendix J.1 Phase I ESA)	Yes	(g)(3)(A), (B)	Consistent
Policy 10	Allow development in flood hazard areas (other than primary floodplains) if mitigation measures	Site is Zone A (SFHA) — not a primary floodplain. Development subject to Floodplain Management Ordinance compliance,	Yes	(g)(3)(B)	Consistent

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
	ensure development will not be hazardous per Safety Element.	LOMR issuance, CUP conditions addressing drainage and flood safety. (App. § 4.11.2 — FEMA FIRM)			
Measure J	Compliance with the Floodplain Management Ordinance is required prior to grading or construction.	Applicant will comply with Kern County Floodplain Management Ordinance prior to grading and will obtain a LOMR. Condition tracked in CUP review. (App. § 4.11.2)	Yes	(g)(3)(B)	Consistent
Section 1.8 — Industrial					
Policy 1	New industrial activities shall be sited with adequate infrastructure (water, sewer, roads, drainage) to minimize effects on County services.	SCE Will-Serve and MOS174 (March 30, 2026) confirm 99 MW service; Inyokern CSD will-serve confirms water/wastewater; Digital 395 provides fiber; SR-178 and US-395 provide access. (App. §§ 1.5, 4.11.1)	No	(g)(3)(B)	Consistent
Policy 3	Protect lands best suited for industrial activity from residential and other incompatible development.	Site is M-2 PD within Inyokern Specific Plan industrial area. Project reinforces industrial character. Surrounded by SR-178, US-395, utility corridors, RB Inyokern Solar Project, and commercial uses. (App. §§ 4.11.1, 4.11.2)	No	(g)(3)(A), (B)	Consistent

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
Policy 4	Protect existing industrial designations from incompatible land use intrusion.	Site is an existing industrial designation (Service Industrial 7.2, M-2 PD zoning). Policy protects the industrial designation from incompatible intrusion; RBIDC proposes an industrial use on an existing industrial parcel and therefore supports, rather than conflicts with, this policy. Nearest residential uses ~500 ft west of Brown Road; no sensitive receptors within 0.25 mile per Table 4.11-1. (App. §§ 4.11.1 Local Setting, 4.11.2, Table 4.11-1)	No	(g)(3)(A), (B)	Consistent
Policy 5	Provide for clustering of new industrial development adjacent to existing industrial uses and along major transportation corridors.	Site is immediately north of SR-178, ~0.5 mile west of US-395, adjacent to RB Inyokern Solar Project and existing commercial/industrial uses along SR-178. (App. § 4.11.1)	No	(g)(3)(B)	Consistent
Policy 7	Industrial uses shall incorporate design features (screen walls, landscaping, increased height/setbacks, lighting restrictions) between industrial and adjacent residential designations to	Nearest residences ~500 ft west of Brown Road. Project incorporates perimeter screening, landscaping, full-cutoff dark-sky-compliant lighting (MM 4.1-1), acoustic attenuation via enclosed buildings and engineered setbacks, and	Yes	(g)(3)(B)	Consistent

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
	reduce light, noise, sound, and vibration impacts.	vibration isolation. (App. §§ 4.1, 4.11.1, 4.13)			
Policy 9	All new discretionary industrial projects in Airport Influence Areas shall be reviewed for ALUCP compatibility prior to approval.	Site is in KIYK Zone C per Yorke Thermal Plume Analysis (App. E.4) Figure 4-1 reproducing the ALUCP Comprehensive Land Use Plan Figure 4-21. Formal ALUC consistency determination is part of entitlement package. Structures <35 ft AGL — Zone C compliant without variance. (App. §§ 4.11.2, 4.11.3, 4.11.5.4; App. E.4 § 4.0 Fig. 4-1)	Yes	(g)(3)(B)	Consistent
Policy 11	Requests for new Map Code 7.2 (Service Industrial) and 7.3 (Heavy Industrial) designations should be discouraged within 1/4 mile of residentially designated property.	Policy not triggered — Project does NOT propose a new 7.2 or 7.3 designation. Site already carries 7.2 designation. Policy addresses new designations, not build-out of existing designations. (App. § 4.11.2)	No	(g)(3)(A)	N/A (no new designation)
Policy 12	All industrial development equal to or greater than 40 acres in a rural area will require the adoption of a Specific Plan prior to development approval.	Policy APPLIES to RBIDC — Project is industrial development of ~83 total acres (or ~50-acre main facility parcel) in rural Kern County. Requirement is satisfied by the adopted Inyokern Specific Plan, which covers the Project Site. Specific Plan Amendment (SPA) is being pursued to	No	(g)(3)(A), (B)	Consistent — ISP satisfies

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
		eliminate the 90-ft ROW secondary collector reservation but the underlying ISP framework remains in place. (App. §§ 1.9.10, 4.11.1, 4.11.2)			
Measure F	All GPAs, zone changes, CUPs, discretionary industrial developments, and variations from height limits in Airport Influence Areas shall be reviewed by Planning Department for ALUCP compatibility.	ALUCP compatibility review incorporated into County CUP and SPA process, culminating in formal ALUC consistency determination for KIYK. (App. §§ 4.11.2, 4.11.3)	Yes	(g)(3)(B)	Consistent
Measure H	Requests for industrial designations and zoning adjacent to residential and other sensitive uses should incorporate a Precise Development Combining District to ensure land use compatibility.	Site is already M-2 PD (Medium Industrial, Precise Development Combining). PD combining district is the mechanism implementing Measure H for this site. (App. §§ 1.9.10, 4.11.2)	No	(g)(3)(A)	Consistent
Measure I	Discretionary projects located within an Extreme, High, or Moderate Fire Hazard Zone shall abide by building materials and construction requirements set	Policy not triggered — Project Site is within the Local Responsibility Area (LRA) with a Non-Very High Fire Hazard Severity Zone (Non-VHFHSZ) designation per the Kern County 2025 FHSZ Update (SB 63). Site is not	Yes	(g)(3)(B)	N/A (Non-VHFHSZ LRA)

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
	forth by the Kern County Fire Department and Office of Emergency Services.	within an Extreme, High, or Moderate FHSZ. Project will still comply with applicable Kern County Fire Department construction requirements through the CUP process. (App. §§ 4.11.1 Wildfire Setting, 4.11.2 CAL FIRE, 4.19 Wildfire; Appendix B §(g)(19)(A)/(B))			
Section 1.10 — General Provisions					
Policy 8 (GP Section 1.10 Policies, 8th bullet)	The County shall ensure that new industrial uses and activities are sited to avoid or minimize significant hazards to human health and safety in a manner that avoids over-concentrating such uses in proximity to schools and residents.	Inyokern Elementary/State Preschool is 0.8 mile SW of Site (outside 0.25-mile sensitive receptor buffer). No sensitive receptors within 0.25 mile. Health and safety analyses (hazards, air, noise, risk of upset) find less than significant with mitigation. (App. §§ 4.11.1 Sensitive Receptors, Table 4.11-1, § 4.8) Policy 8 numbering verified against GP Section 1.10 Policies bulleted list (8th policy).	Yes	(g)(3)(A), (B)	Consistent
Section 1.10.2 — Air Quality					
AQ Policy 1	The air quality implications of new discretionary land use proposals shall be considered in approval of major developments.	Air quality implications analyzed in § 4.3 (Air Quality) and Air Quality Impact Analysis (Appendix F.1). Project is in the desert region (Indian Wells Valley / Mojave);	Yes	(g)(3)(B)	Consistent

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
	Special emphasis shall be placed on minimizing air quality degradation in the desert to enable effective military operations and in the valley region to meet attainment goals.	special emphasis on military-operation-compatible emissions is addressed through R-2508 Complex coordination per ALUCP Ch. 4.17 and dust-control coordination with NAWS. (App. §§ 4.3, 4.11.1, 4.11.5.4; App. F.1)			
AQ Policy 2	For discretionary projects requiring an EIR under CEQA, the decision-making body shall ensure: (a) all feasible mitigation to reduce significant adverse air quality impacts has been adopted; and (b) project benefits outweigh any unavoidable significant adverse effects found after inclusion of all feasible mitigation (statement of overriding considerations where required).	Section 4.3 Air Quality analysis demonstrates all impacts are less than significant with mitigation; no statement of overriding considerations is required.	Yes	(g)(3)(B)	Consistent — CEQA process
AQ Policy 3 (Application "Policy 20")	Include fugitive dust control measures as a requirement for discretionary projects and as required by applicable APCD rules.	Fugitive dust control per EKAPCD Rule 402/405 and standard construction BMPs, integrated into Dust Control Plan. Also required as R-2508/NAWS coordination condition. (App. § 4.3, § 4.11.1)	Yes	(g)(3)(B)	Consistent

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
AQ Implementation Measure — Air District Referral	All discretionary permits shall be referred to the appropriate air district for review and comment.	Project will be referred to EKAPCD as part of CUP process. Not currently addressed in Application § 4.11 as a separately enumerated GP measure — recommend adding. (App. §§ 4.3, 4.11.2 CEQA)	Yes	(g)(3)(B)	Consistent — CUP process
AQ Implementation Measure — Diesel Emission Controls	Discretionary projects may use emission control devices on diesel equipment (among other measures) to reduce air quality effects.	All 40 proposed Caterpillar 3-MW diesel emergency generators are equipped with Tier 3 SCR (selective catalytic reduction), DEF (diesel exhaust fluid), and DPF (diesel particulate filters) per Yorke App. E.4 § 1.0. This directly implements the measure's diesel emission control approach. (App. § 4.3; App. E.4 § 1.0)	Yes	(g)(3)(B)	Consistent
Section 1.10.7 — Light and Glare					
L&G Policy 1 (Application "Policy 47")	Ensure light and glare from discretionary new development projects are minimized in rural as well as urban areas.	MM 4.1-1 requires Construction and Operations Lighting Plan demonstrating compliance with Kern County Dark Skies Ordinance (Ch. 19.81) and ALUCP glare provisions, including full-cutoff fixtures, 2700–3000K CCT, no uplight, photometric analysis at	Yes	(g)(3)(B)	Consistent

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
		property line. (App. MM 4.1-1)			
L&G Policy 2 (Application "Policy 48")	Encourage low-glare lighting to minimize nighttime glare effects on neighboring properties.	Same as L&G Policy 1. Lighting plan includes dimmable drivers, warm CCT, full-cutoff optics directed downward. (App. MM 4.1-1)	Yes	(g)(3)(B)	Consistent
L&G Implementation Measure	The County shall utilize CEQA Guidelines and the provisions of the Zoning Ordinance to minimize the impacts of light and glare on adjacent properties and in rural undeveloped areas.	CEQA analysis addresses light and glare in § 4.1 (Aesthetics) with MM 4.1-1 (Outdoor Lighting Controls and Dark-Sky Compliance) and MM 4.1-2 (Exterior Building and Equipment Finishes). Zoning Ordinance Ch. 19.81 (Dark Skies Ordinance) applied. (App. §§ 4.1, MM 4.1-1, MM 4.1-2)	Yes	(g)(3)(B)	Consistent

Legend — Finding Categories: **Consistent** — Project complies with the provision as proposed, without further action.; **Consistent — [condition]** — Project complies but compliance is confirmed through a specific pending discretionary action or condition of approval; **Conditional — [action] pending** — Consistency is conditioned on completion of a named discretionary approval (CUP, SPA, LLA, ALUC determination, etc.); **NA** — Provision not triggered by Project scope or facts.

Inyokern Specific Plan

The Inyokern Specific Plan is a subset of the Kern County General Plan and provides specific policies for this area to guide development within and surrounding the community of Inyokern.

The Inyokern Specific Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the Project. All policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

Table 4.11-8 below draws on applicable provisions included in the Inyokern Specific Plan.

Table 4.11-8: Applicable Inyokern Specific Plan Provisions

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
ISP Land Use Designation — 7.2/2.5 (Service Industrial / Flood Hazard)	ISP designates the Project Site 7.2/2.5 (Service Industrial with Flood Hazard combining designation) consistent with the Kern County General Plan Land Use Element.	Project is a data center and supporting emergency generating facility — an industrial use consistent with Service Industrial designation. Flood Hazard combining designation addressed via LOMR. (App. §§ 4.11.1 Local Setting, 4.11.2; AQIA Fig. 6-1)	No	(g)(3)(A)	Consistent
ISP Future Secondary Collector — 90-ft ROW Reservation	ISP currently reserves a planned future 90-foot right-of-way for a secondary collector crossing the Project Site.	Project proposes Specific Plan Amendment (SPA) to eliminate this planned ROW reservation. Existing SR-178 and Brown Road network provides adequate regional access without the reserved collector. SPA filed concurrently with CUP — pending Kern County Board of Supervisors approval. (App. §§ 1.9.10, 4.11.2, 4.11.3, 4.11.5.2)	No	(g)(3)(B)	Conditional — SPA pending BOS approval
ISP Land Use, Open Space, and Conservation Element	Identifies physical constraints, public, residential, commercial, and industrial facilities, and cultural/biological resources within the Plan area; adopted as part of	Project Site is an identified industrial parcel within the ISP area. Impacts to biological, cultural, and visual resources addressed in §§ 4.1,	Yes	(g)(3)(A), (B)	Consistent

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
	the Kern County General Plan to supplement Countywide document.	4.4, 4.5 with mitigation measures where applicable. (App. §§ 3.1.4, 3.4.4, 4.5.3, 4.11.2)			
ISP Policies — General (unlisted)	Application states ISP contains 'additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the Project' and are 'incorporated by reference' without individual enumeration.	ISP policies are incorporated by reference and the Project conforms. Project preserves regional circulation, infrastructure is confirmed, and community character is preserved. (App. §§ 3.4.4, 4.5.3, 4.11.2)	Varies	(g)(3)(A), (B)	Consistent
ISP — Required Discretionary Actions	Development requires CUP and any applicable SPA.	Applicant is pursuing CUP, SPA, and LLA 28-25 concurrently. Annexation into Inyokern CSD also pursued. (App. §§ 1.9.10, 4.11.2, 4.11.3)	No	(g)(3)(B)	Consistent — entitlements in process

Legend — Finding Categories; **Consistent** — Project complies with the provision as proposed, without further action; **Consistent — [condition]** — Project complies but compliance is confirmed through a specific pending discretionary action or condition of approval; **Conditional — [action] pending** — Consistency is conditioned on completion of a named discretionary approval (CUP, SPA, LLA, ALUC determination, etc.); **N/A** — Provision not triggered by Project scope or facts.

Kern County Zoning Ordinance

The Kern County Zoning Ordinance regulates permitted uses, conditionally permitted uses, development standards, combining districts, and discretionary review procedures in unincorporated Kern County. The Project Site is zoned M-2 PD (Medium Industrial, Precise Development Combining). The Project would require a Conditional Use Permit and other discretionary County review to confirm consistency with applicable zoning requirements and development standards.

Table 4.11-9 below draws on the applicable provisions of the Kern County Zoning Ordinance.

Table 4.11-9: Applicable Kern County Zoning Ordinance Provisions

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
Base District: M-2 (Medium Industrial)	M-2 allows a broad range of industrial uses including manufacturing, processing, utility, and data-processing/computing uses, subject to development standards and conditional use review for certain uses.	Data center and emergency diesel generation uses are industrial uses appropriate to M-2. CUP required to confirm consistency with M-2 standards and ALUCP Zone C conditions. (App. §§ 1.9.10, 4.11.2)	No	(g)(3)(A), (B)	Consistent — CUP required
Combining District: PD (Precise Development)	PD combining district requires site-specific discretionary review of site plan, building elevations, landscaping, lighting, and other design elements prior to issuance of building permits.	PD review satisfied through CUP/site plan review addressing site plan, elevations, screening, landscaping, lighting as site-specific conditions. Project implements PD objectives via MM 4.1-1 and engineered screening/setback design. (App. §§ 4.1, 4.11.2, 4.11.3)	Yes	(g)(3)(A), (B)	Consistent
Ch. 19.81 — Dark Skies Ordinance	Outdoor lighting must comply with full-cutoff/shielding, color temperature, and glare restrictions to protect night-sky and airport operations.	MM 4.1-1 requires Construction and Operations Lighting Plan prior to grading and building permits, with photometric analysis, full-cutoff optics, 2700–3000K CCT, dimmable drivers, no uplight, downward direction. Applicant will maintain	Yes	(g)(3)(B)	Consistent

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
		compliance for operational life. (App. MM 4.1-1)			
Height Limits — M-2 District	M-2 District height limits apply; any height exceedance requires variance or conformance with combining district and overlay limits.	All structures <35 ft AGL — within M-2 base height limits and ALUCP Zone C height limit (35 ft). No variance required. (App. §§ 4.11.2, 4.11.3; App. E.4 § 4.0)	Yes	(g)(3)(B)	Consistent
Setbacks and Development Standards	Standard M-2 front/side/rear setbacks, parking, landscaping, and screening requirements apply.	Site plan filed with CUP demonstrates compliance with applicable M-2 setbacks. Parking (155 stalls, ~55,000 sf per App. E.4 Fig. 1-2) addressed in site plan and transportation analysis. Screening and landscaping conditioned through PD combining district review. Specific numeric setback, parking ratio, and landscape percentage requirements are confirmed through the Kern County CUP review process. (App. Appendix A.1; App. E.4 Fig. 1-2)	No	(g)(3)(A), (B)	Consistent — confirmed via CUP review
Parcel Consolidation	Industrial development on multiple legal parcels typically requires parcel merger or lot line	Project area comprises APNs 084-010-43, -44, -45 (portion), -48 (portion). LLA No. 28-25 establishes adjusted	No	(g)(3)(C)	Conditional — LLA 28-25 and consolidation

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
(Single-Parcel Requirement)	adjustment prior to construction.	Lots A, B, C. Additional parcel consolidation required to place main Project on single legal parcel will be completed prior to construction per CEC SPPE App. B §(g)(3)(C). (App. §§ 4.11.1, 4.11.5.2)			prior to construction
Conditional Use Permit Findings — Zoning Ordinance	CUP findings require that the proposed use is consistent with the General Plan, compatible with surrounding uses, served by adequate infrastructure, and will not be detrimental to health, safety, or welfare.	Project consistent with Service Industrial GP designation (§ 4.11.2); surrounded by compatible industrial/utility uses (§ 4.11.1); served by SCE, Inyokern CSD, and regional fiber (§ 1.5); all environmental impacts in §§ 4.1–4.18 less than significant with mitigation. (App. §§ 1.9.10, 4.11.2, 4.11.3)	Yes	(g)(3)(B)	Consistent — CUP required

Legend — Finding Categories: **Consistent** — Project complies with the provision as proposed, without further action; **Consistent — [condition]** — Project complies but compliance is confirmed through a specific pending discretionary action or condition of approval; **Conditional — [action] pending** — Consistency is conditioned on completion of a named discretionary approval (CUP, SPA, LLA, ALUC determination, etc.); **N/A** — Provision not triggered by Project scope or facts.

Airport Land Use Compatibility

The Project Site is located approximately 0.4 mile southeast of Inyokern Airport (KIYK) and is subject to the adopted alternative process of the Kern County Airport Land Use Compatibility Plan (ALUCP). The project site is located in Zone C of the ALUCP, the outer boundary of the Common Traffic Pattern Zone. The Project use (industrial data center, M-2 PD zoning) is preliminarily consistent with the industrial compatibility standards applicable to Zone C, and the Project does not require a variance from County height limits. The project meets the use compatibility, density, and open space requirements of the plan. Required consultation will occur with the military

installations and R-2508 Airspace Complex and imposition of conditions for Frequency Deconfliction coordination, dust control, and Dark Sky ordinance implementation and management will ensure compatibility with the requirements of the ALUCP military aviation policies.

Table 4.11-10 below draws on the applicable provisions relate to both § 4.11 of the Application narrative and the Yorke Engineering Thermal Plume Analysis (Appendix E.4, January 2026). Yorke App. E.4 is the controlling technical source for airport distance, Zone designation, thermal plume findings, and Part 77 determination.

Table 4.11-10: Kern County Airport Land Use Compatibility Plan (ALUCP) and FAA 14 CFR Part 77

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
ALUCP § 3.3.3 — Height Restriction (Zone C)	Maximum height of structures/objects in Zone C is restricted to 35 feet above ground level.	All proposed structures <35 ft AGL. Structures are 115 ft below the 150 ft AGL horizontal surface limit (FAR Part 77). No variance required. (App. §§ 4.11.1, 4.11.3; FAR Part 77 Analysis Fig. T-2; App. E.4 § 4.0)	Yes	(g)(3)(B)	Consistent
ALUCP § 3.3 — Other Flight Hazards (Thermal Plumes, Glare, Smoke, EMI, Wildlife)	Land uses producing hazards to aircraft in flight (glare, thermal plumes, dust, smoke, electromagnetic interference, wildlife attractants) shall not be permitted within an airport's influence area.	MM 4.1-1 eliminates glare via full-cutoff optics. Thermal Plume Analysis (App. E.4, Yorke Engineering Jan. 2026) confirms using the Spillane methodology (Best et al. 2003) that all plumes dissipate below the 5.3 m/s CEC Vcrit threshold at max ~201.7 ft AGL worst-case (chiller merged plumes, minimum ambient temp — App. E.4 Table 3-1); diesel generator merged plumes max 119.7 ft AGL; cooling tower max 125.5 ft AGL. These heights are well below aircraft operating	Yes	(g)(3)(B), (g)(5)(B)	Consistent

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
		altitudes over the Project Site. Dust controls per Air Quality Plan; no new wildlife attractants (no open water features). (App. §§ 4.11.1, 4.11.3 Table 4.11-2; App. E.4 §§ 3.1–3.3, Table 3-1, § 5.0)			
ALUCP § 4.5 — Inyokern Airport (KIYK) Policies	Policies governing height, noise, glare, and land use within KIYK Airport Influence Area and compatibility zones.	Project is within the KIYK Airport Influence Area. Yorke Thermal Plume Analysis (App. E.4 §§ 1.0, 3.0) establishes the distance as 0.9 miles from the Project Site to the nearest runway end — the operationally significant measurement for the Part 77 / thermal plume / ALUCP analyses. ALUC consistency determination is part of the entitlement package. (App. §§ 4.11.1, 4.11.2, 4.11.5.4; App. E.4 § 1.0, Fig. 1-1)	Yes	(g)(3)(B), (g)(5)(B)	Consistent
ALUCP Compatibility Zone — Zone C (Common Traffic Pattern, Outer)	Zone C: 'limited risk' areas — aircraft at or below 1,000 ft AGL; frequent noise intrusion. Prohibits schools, hospitals, nursing homes, and flight hazards. Max density for 'other uses': 150 people per acre. Minimum 15% of project site as open space (parking lots count toward open space per	Site in Zone C (confirmed by Yorke App. E.4 Fig. 4-1 reproducing ALUCP Figure 4-21 Comprehensive Land Use Plan). Project use (industrial data center) is a permitted Zone C use — not a school/hospital/nursing home. ~30 full-time employees on ~50-acre site = ~0.6 people/acre (well below 150 person/acre density limit). Open space including ~55,000 sf parking area (App. E.4 Fig.	Yes	(g)(3)(B), (g)(5)(B)	Consistent — confirm via CUP site plan

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
	Compatibility Criteria Table 2A).	1-2) meets/exceeds 15% minimum (to be confirmed through site plan). Project does not line up with any KIYK takeoff or landing pathways (App. E.4 § 4.0). Consistency confirmed through Kern County CUP review. (App. §§ 4.11.1, 4.11.3; ALUCP Table 2A; App. E.4 §§ 3.0, 4.0)			
ALUCP Zone Designation — Reconciliation	Application § 4.11 analyzes Zone C. Application §§ 4.9.1.2 (line 6505) and 4.9.3 (line 7254) describe Site as in 'Zones B1 and C.' Yorke Thermal Plume Analysis (App. E.4 Figure 4-1) — the controlling technical study — shows the site in Zone C only.	Resolved per Yorke App. E.4 Fig. 4-1: Site is in ALUCP Zone C (not B1). §§ 4.9.1.2 and 4.9.3 of the Application need conforming edits to remove the 'Zones B1 and C' description and align with the controlling Yorke analysis. (App. §§ 4.9.1.2, 4.9.3, 4.11.1, 4.11.3; App. E.4 Fig. 4-1)	Yes	(g)(3)(B), (g)(5)(B)	Consistent — requires Application conforming edit
ALUCP Ch. 4.17 — Military Aviation (NAWS China Lake, Edwards AFB, R-2508 Complex)	Compatibility policies for military installations and the R-2508 Restricted Airspace Complex; require early notification and consultation with installations and the Frequency Deconfliction Office.	NAWS China Lake ~8–9.5 mi east; Edwards AFB ~60 mi. R-2508 coordination condition includes: (a) early notification and consultation; (b) dust control (no impact to testing flights); (c) Frequency Deconfliction coordination; (d) Dark Skies Ordinance adherence. (App. §§ 4.11.1 Airport/Military, 4.11.5.4)	Yes	(g)(3)(B)	Consistent — coordination conditions

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
Airport Land Use Compatibility Determination	Formal airport land use compatibility review required as part of the discretionary entitlement package for projects within an Airport Influence Area.	Kern County disestablished its Airport Land Use Commission (ALUC) in 1994 (per Board of Supervisors Resolution, February 28, 1994) and uses an approved alternative process via the General Plan and Zoning Ordinance for airport land use compatibility determinations. The Application § 4.11 (line 8443) correctly notes this. Airport land use compatibility review is incorporated into Kern County's CUP and SPA process via GP Industrial Policy 9 and Measure F, ALUCP § 4.5 KIYK policies, and ALUCP Compatibility Criteria Table 2A (Zone C). (App. §§ 4.11.1, 4.11.3, 4.11.4, 4.11.5.4)	Yes	(g)(3)(B)	Consistent — via Kern County alternative process
FAA 14 CFR Part 77 — Navigable Airspace	Objects affecting navigable airspace; Form 7460-1 notice required for structures meeting defined height/proximity thresholds. Horizontal surface at KIYK is 150 ft AGL.	Per Yorke App. E.4 § 4.0: Form 7460-1 is not required because (a) no structures exceed 200 feet, and (b) the closest takeoff/landing runway portion is 5,000 feet away, requiring structures to be below a 25-to-1 slope rise (200 ft at 5,000 ft), which all <35-ft structures satisfy with substantial margin. Independently, all structures are 115 ft below the Part 77 150-ft AGL horizontal surface. Project does not require FAA	Yes	(g)(3)(B), (g)(5)(B)	Consistent

Citation	Provision (as summarized in Application)	Project Response / Basis of Consistency	Appx G Env. Mitigation Purpose?	CEC App. B (g)(3) Ref.	Finding
		review. (App. §§ 4.11.2, 4.11.3; App. E.4 § 4.0)			
CEC SPPE App. B § (g)(5)(B) — Airport Analysis (4-mile threshold)	Projects within 4 miles of a public/military airport must submit: (i) airport runway/influence area/safety zone map; (ii) thermal plume analysis; (iii) conformance discussion with ALUCP policies; (iv) copies of FAA Form 7460-1 filings (if any).	Site is 0.9 miles from Inyokern Airport nearest runway end (Yorke App. E.4 § 1.0) — within the 4-mile threshold. (i) App. E.4 Fig. 1-1 (airport configuration) and Fig. 4-1 (Inyokern Airport Land Use Plan with safety zones); (ii) App. E.4 §§ 2.0–3.0 thermal plume analysis using Spillane/Best methodology for diesel generators, cooling towers, and chillers, calm-wind worst case at min and max ambient temperatures; (iii) App. E.4 § 4.0 and App. § 4.11.3 ALUCP conformance discussion; (iv) Form 7460-1 not required per App. E.4 § 4.0. (App. § 4.11.5; App. E.4 §§ 1.0, 2.0, 3.0, 4.0, Fig. 1-1, Fig. 4-1, Table 3-1)	No	(g)(5)(B)	Consistent

Legend — Finding Categories: **Consistent** — Project complies with the provision as proposed, without further action; **Consistent — [condition]** — Project complies but compliance is confirmed through a specific pending discretionary action or condition of approval; **Conditional — [action] pending** — Consistency is conditioned on completion of a named discretionary approval (CUP, SPA, LLA, ALUC determination, etc.); **N/A** — Provision not triggered by Project scope or facts.

FEMA Flood Insurance Rate Map

The Project Site is located within a Zone A FEMA special flood hazard area, consistent with the Flood Hazard combining designation in the Kern County General Plan, as shown in Figure 4-1 of the Hydrology Study (Appendix E.1). Zone A flood hazard areas are subject to inundation by the 1% annual chance of flood; however, no base flood elevation is determined. The flood water in the project area is the result of being adjacent to Little Dixie Wash, located south of the project site approximately 8,000 ft away.

The Applicant is required to obtain a Letter of Map Revision (LOMR) through site grading prior to construction. This flood hazard designation does not affect the land use compatibility analysis but is a required component of the County CUP review process.

4.11.3 Impacts and Mitigation Measures

Methodology

This section evaluates: (1) existing land use conditions, designations, and surrounding uses on and adjacent to the Project Site; (2) whether existing land use designations and applicable plans and policies can accommodate the proposed Project use; and (3) whether new or amended approvals, entitlements, or plan amendments would be required prior to or as a condition of construction and operation. The analytical method evaluates consistency with each applicable plan, policy, regulation, and threshold using the project description, site-specific mapping, and technical studies identified in this section.

Thresholds of Significance

In accordance with the Kern County CEQA Implementation Document and CEQA Guidelines Appendix G Environmental Checklist Form, a land use and planning impact is considered significant if the Project would:

- (a) Physically divide an established community; or
- (b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Project Impacts

Impact 4.11-1: Would the Project physically divide an established community?

This impact evaluates whether the Project would result in (a) the physical division of an established community that would isolate parts of a neighborhood by altering circulation patterns and access to public services; or (b) inconsistency with the Kern County General Plan, Inyokern Specific Plan, and County Zoning Ordinances.

Construction

During construction, the Project would not sever an existing neighborhood, displace a residential area, or interrupt established access patterns within the Inyokern community. Construction activity would be confined to the Project Site and the associated subtransmission line corridor alignment, which follows existing roadway and utility infrastructure. No construction-phase conflicts with established community patterns are anticipated.

Operation

As discussed in Section 4.16, *Transportation and Traffic*, the proposed main facility would be located on the north side of SR-178, and the associated overhead subtransmission linear connection would extend to an existing utility interconnection area south of SR-178.

The project site is located near three major highways that would provide access to the general vicinity of the project during the construction and operation phases. State Route 14 (SR-14) and United States Route 395 (HWY-395) are key north–south corridors for the project area. In addition to providing north and south access, these roadways provide through traffic connections to the City of Ridgecrest, the communities of Inyokern and China Lake Acres, and the China Lake Naval Air Weapons Station. Recreational travelers from southern California to the mountain recreation areas use both routes heavily. In addition, SR-178 provides east–west service through the area and provides access from the City of Bakersfield to the City of Ridgecrest. The Transportation Facility Inventory Map (Figure T-4) confirms that primary and secondary project access would be via SR-178 and Brown Road and US 395, respectively, consistent with the existing roadway network.

According to the 2018 Kern Region Active Transportation Plan (ATP) (Kern COG 2018), the existing bicycle infrastructure network is disconnected with gaps in areas surrounding the Project site. The community of Inyokern is treated as part of the general unincorporated area plans of the ATP not part of the special focus areas for bicycling facilities. The Kern County General Plan Circulation Element incorporates Class I, Class II and Class III. There are two Class III bicycle facilities in the immediate vicinity of the project site, which are located on SR-178 between SR-14 and Brown Road and on Brown Road between US 395 and South China Lake Boulevard. The Project would not affect the nearby bicycling facilities.

The KOG 2022 Regional Transportation Plan calls for 242 miles of pedestrian facilities in the Kern region over a 20 year period. Pedestrian walkways proximate to the Project Site consists of unimproved, dirt pathways along paved roadways and the Project does not involve the vacation or alteration of existing pedestrian facilities.

Public transportation in Kern County is provided by Kern Regional Transit, which offers 17 fixed routes, inclusive of 12 fixed routes connecting rural communities, throughout the County and a dial-a-ride general public transportation service for residents in most communities. These routes provide regional connectivity, including services to Bakersfield and a connection to Metrolink in Lancaster. As part of the 200-Series, Route 227 provides fixed-route scheduled bus service generally on weekdays between Ridgecrest and Lake Isabella on SR-178, with stops in the communities of Kernville, Onyx, and Inyokern. The nearest bus stop providing access to Route 227 is located adjacent to the project site on SR-178 between Reeves Avenue and West Graaf Avenue. Route 230 provides fixed-route scheduled bus service on weekdays between Mojave and Ridgecrest on SR-14 and SR-178, with stops in the communities of Lancaster, California City, and Inyokern. The nearest bus stop providing access to Route 230 is located approximately 350 feet west of the project site on SR-178 at Broadway. The Project would not alter access to existing public transportation.

An on-site perimeter service road is designed to provide emergency vehicle circulation around the full campus perimeter with a minimum 20-foot clearance for fire apparatus. A designated helicopter landing zone is provided within the Project Site for air ambulance access.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less than significant.

Impact 4.11-2: Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

This impact evaluates whether the Project would result in a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Construction

During construction, the Project would require compliance with applicable local codes, the Kern County ALUCP, and the conditions of the required Conditional Use Permit. Construction activities would be subject to standard mitigation for air quality, noise, traffic, and other resource areas addressed in the applicable sections of this Application. No land use plan conflicts are identified for the construction phase.

Operation

Every element of a CEQA Environmental Impact Report (EIR) and this Application are directly or indirectly related to land use and planning, as CEQA is tasked with evaluating how physical changes proposed by land plans impact the environment. As such relevant portions of each element of Section 4 are discussed below:

Aesthetics (Section 4.1)

Federal Scenic Byways and All-American Roads. There are no National Scenic Byways or All-American Roads within the vicinity of the Project Site (FHWA, 2019b). The Pacific Coast Trail (PCT), which is protected by the National Trails System Act of 1969, is located 12.5 miles west of the Project Site and is not considered directly relevant to the Aesthetics analysis of the Project.

The Project's electrical interconnection to the SCE 115 kV transmission system at the Inyokern Substation is subject to Federal Energy Regulatory Commission (FERC) jurisdiction through the California Independent System Operator (CAISO) interconnection process; that review occurs separately from local land use entitlements.

No federal land use plan, which implicates the Federal Land Policy and Management Act of 1976 (FLPMA), has been identified that governs private industrial development at the Project Site. The project parcels are privately owned and are not subject to Bureau of Land Management or other federal land use jurisdiction. The Notice Area Map (Appendix B, Section (a)(1)(E)) identifies 161 adjacent BLM/State/Federal parcels with no private assessor record within the notice area; no

private owner notice is required for those parcels. There are no other applicable federal regulations for this land use and planning issue element.

California Scenic Highway Program there are no Designated State Scenic Highways within Kern County. The closest Eligible Scenic Highways are SR-14 (portion north of Business East Route 58) located approximately 3.2 miles to the west of the Project Site and Business East Route 58 (portion east of SR-14) located approximately 43.2 miles south of the Project Site (Caltrans, 2017).

The Kern County General Plan of the California Scenic Highways Master Plan identifies three (3) routes that are designated as an “Eligible State Scenic Highway” within the County. Route 1, which begins north of Mojave and continues to the Inyo County Line, consists of State Route 14 and HWY 395. Route 2 consists of Business East Route 58 between Mojave and Boron. Route 3 consists of 5 miles of State Route 41 in northwest Kern County. The Project Site would be visible from Route 1 and 2. However, because HWY 395, Business East Route 58, and SR-14 are not officially designated, they are not considered Scenic Highways for this analysis.

The Kern County Zoning Ordinance (Chapter 19.81: Dark Skies Ordinance (Outdoor Lighting))

The ordinance was adopted to maintain the existing character of Kern County by requiring a minimal approach to outdoor lighting, recognizing that excessive illumination can create a glow that may obscure the night sky and excessive illumination or glare may constitute a nuisance. The ordinance provides requirements for outdoor lighting within specified unincorporated areas of Kern County.

Construction of the Project would generally occur during daytime hours between 7 a.m. and 6 p.m. In the event that work is performed outside of this schedule during the evening or early morning, construction crews would use minimal illumination in order to perform the work safely. During operations and maintenance, the Project would include nighttime security lighting to provide maintenance personnel with illumination for both normal and emergency conditions. Lighting would be installed along the subtransmission line as required by FAA and minimal lighting is anticipated along the majority of the fence lines around the perimeter of the data center.

All lighting would be directed downward and shielded to focus illumination on the desired work areas only, and to prevent light spillage onto adjacent properties.

The Kern County Development Standards

The Project would be required to comply with specific regulations pertaining to lighting standards including the requirement that lighting must be designed so that light is reflected away from surrounding land uses so as not to affect or interfere with vehicular traffic, pedestrians, or adjacent properties.

The Kern County Airport Land Use Compatibility Plan, Chapter 3.3 Airspace Protection

(3.3.5 Other Flight Hazards)

County's ALUCP covers land use characteristics which may produce hazards to aircraft in flight shall not be permitted within any airport's influence area. The County's ALUCP requires that Projects located within the planning boundary or Airport Influence Area for each airport comply with the height restriction standards and procedures set forth in FAA Part 77. Section 4.5 of the ALUCP defines policies associated with the Inyokern Airport, including requirements regarding the height of proposed structures as well as certain land use characteristics, such as glare.

The Project Site is located approximately 0.3 miles east of the Inyokern Airport's western boundary and is within the airport influence area. Specifically, the Project Site is located in Compatibility C. According to the Kern County ALUCP, areas within Zone C would be impacted by "limited risk" due to aircraft at or below 1,000 feet above ground level. Per Section 3.3.3 of the ALUCP, the maximum height of structures or other objects is restricted to 35 feet above ground level for Projects within Zone C.

The Inyokern Specific Plan

There are no objectives, policies, or implementation measures in the Inyokern Specific Plan that are applicable to aesthetics. The Inyokern Specific Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the Project. Nevertheless, all policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

As discussed in Section 4.1, *Aesthetics*, the Project's impacts to aesthetics with the implementation of stated mitigation measures have been determined to be *less than significant*.

Agriculture and Forestry Resources (Section 4.2)

The Project Site is not within a federally designated agricultural or forestry resource area. Additionally, the Project Site is not designated by the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) as prime Farmland, Farmland of Statewide Importance, or Unique Farmland. The Project Site is not under a Williamson Act Land Use contract (DOC, 2013). The DOC Farmland Mapping and Monitoring Program Designations designates the Project Site as "Nonagricultural and Natural Vegetation," "Grazing Land," and "Vacant or Disturbed Land." (DOC, 2016). The Project Site is not located in an area designated as an agricultural district in the Kern County General Plan as Exclusive Agriculture and Limited Agriculture.

As discussed in Section 4.2, *Agriculture and Forestry Resources*, the Project's impacts to agriculture and forestry resources have been determined to be *less than significant*.

Section 4.3 – Air Quality

Under the provisions of the U.S. Clean Air Act, the Kern County portion of the Mojave Desert Air Basin (MDAB) and the SJVAB has been classified as non-attainment/extreme, non-attainment/severe, non-attainment, attainment/unclassified, attainment, or unclassified under the established NAAQS and CAAQS for various criteria pollutants. The Project area is located within Kern County in the northeastern portion of the Mojave Desert Air Basin (MDAB or Basin) for which the EKAPCD has jurisdiction to regulate air pollutant emissions.

As noted above, the EKAPCD has been designated as unclassifiable/attainment for the NAAQS for CO, PM₁₀, PM_{2.5}, and Lead, serious nonattainment for the O₃ eight-hour average standard, attainment for the O₃ one-hour average standard and unclassified for NO_x and SO_x. A federal designation for hydrogen sulfide (H₂S) has not been made. The EKAPCD has been designated as nonattainment for the state one-hour and eight-hour standards for O₃, and PM₁₀, unclassified PM_{2.5} and CO, and attainment for NO_x, SO_x, and Lead. A state designation for hydrogen sulfide (H₂S) has not been made.

New Source Performance Standards (NSPS)

The proposed Project would be subject to the applicable New Source Performance Standards (NSPS) standards including the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60, Subpart IIII). The Project's emergency diesel engines are subject to Subpart IIII. The proposed engines are EPA Tier 2 rated and would be equipped with Best Available Control Technology (BACT) to meet Tier 4 emissions standards.

Compression Ignition (CI) Diesel Engines Emission Standards, the proposed diesel-fired engines are EPA Tier 2-certified base engines equipped with Johnson Matthey CompactSCRT aftertreatment (SCR + DPF), achieving Tier 4 Final-equivalent emission levels at stack and meeting the BACT requirements of the EKAPCD. The proposed CI engines are exempt from the requirements of Subpart ZZZZ (63.6590 (c)(1)) if the engines comply with the emissions limitations specified in 40 CFR 60 Subpart IIII.

EKAPCD Regulation II, Rule 210.1 – New & Modified Stationary Source Review (NSR)

This rule applies to all new or modified sources requiring a Permit to Operate for any new

source with actual or potential emissions above the rule trigger limits. Under Rule 210.1, BACT is determined on a case-by-case basis and is defined as the most stringent emission limitation or control technique that has been achieved in practice for the category of source, or is technologically feasible and cost-effective, considering energy, environmental, and economic impacts.

BACT determinations are conducted using a top-down evaluation of available control technologies. The most effective control option that is technically and economically feasible is selected as BACT.

The proposed 4,023 horsepower diesel-fired engines will operate as emergency standby generators. Available control technologies evaluated include SCR and DPF to meet EPA Tier 4

Final emission standards. For new stationary emergency compression-ignition engines of this size, EPA Tier 4 Final certification represents the most stringent emission standard currently achieved in practice.

Short-term Air Quality Impacts

The proposed Project would have short-term air quality impacts due to construction activities as well as vehicular emissions. Even though unmitigated emissions would be less than the air quality thresholds, the Project also must comply with EKAPCD Rule 402 to limit fugitive dust emissions. To ensure compliance, the following mitigation measures were applied in CalEEMod resulting in Mitigated emissions shown in Table 4.9-12 (Restating AQIA Table 4-3) Watering of exposed area three times per day; and reducing vehicle speed to less than 15 miles per hour on unpaved roads.

As calculated with CalEEMod, the estimated short-term construction-related emissions would not exceed EKAPCD significance threshold levels during any given year.

As discussed in Section 4.3, *Air Quality*, the Project's short term, construction-related impacts to air quality have been determined to be *less than significant*.

Long-Term Air Quality Impacts

Long-term emissions are caused by operational mobile sources, area source emissions from the on-site building, and stationary sources. Operation of the Project site at full build-out is not expected to present a substantial source of fugitive dust (PM₁₀) emissions. The main source of PM₁₀ emissions would be from vehicular traffic associated with the Project site. Emissions were estimated with CalEEMod using average daily trip counts from the traffic study and default trips lengths and fleet mix. CalEEMod was also used to estimate area source emissions from the on-site buildings and facility uses.

Project-related stationary sources will also generate criteria pollutants from 40 emergency generators (ROG, NO_x, SO_x, CO, PM₁₀, and PM_{2.5}), cooling towers (PM₁₀ and PM_{2.5}), and fuel storage (VOC).

40 Caterpillar diesel-fired generators: Tier 2-certified base engines equipped with Johnson Matthey CompactSCRT aftertreatment (SCR/DPF/DEF), achieving Tier 4 Final-equivalent emission levels at stack.

Cooling towers: Particulate matter (PM₁₀ and PM_{2.5}) emissions from cooling towers occur primarily due to "drift," which is the release of tiny water droplets carried out of the tower with the exhaust air.

Fuel Storage: The backup generators will primarily operate on renewable diesel when available. When renewable diesel is not readily accessible, ultra-low sulfur diesel will be used as an alternative. Each generator will have built-in fuel tanks and connections to additional on-site fuel storage. The six 100,000 gallon diesel fuel storage tanks would be double-walled with integrated leak detection systems or installed within secondary containment structures. Kern County Code Section 18.80.030(T) requires the Kern County Fire Marshal to approve the storage of flammable

and combustible liquids in excess of 12,000 gallons per tank and an aggregate maximum of 48,000 gallons, when accessory to a permitted use in the M-2 Zoning District. The project has requested written approval from the Kern County Fire Marshal to store the proposed six 100,000 gallons of storage tanks, with an aggregate total of 600,000 gallons. Combined, the generator and secondary fuel tanks will provide sufficient diesel storage to sustain 24 to 72 hours of continuous emergency operation at the data center's full electrical load under worst-case conditions.

Project-related transportation activities from industry would generate mobile source ROG, NO_x, SO_x, CO, PM₁₀, and PM_{2.5} exhaust emissions. Exhaust emissions would vary substantially from day to day but would average out over the course of an operational year.

As shown in the tables presented in the AQIA, operations-related emissions, as calculated in Appendix A of the AQIA, would not exceed the EKAPCD significant threshold levels. Therefore, the Project is *less than significant* for operational emissions.

Potential Impacts on Sensitive Receptors

The nearest residential sensitive receptor to the proposed Project is located approximately 500 feet west of the Project Site (west of Brown Road). As confirmed by Table 4.11-2, the nearest school (Inyokern Elementary School and State Preschool) is located approximately 0.8 mile southwest of the Project Site, which is outside the 0.25-mile sensitive receptor buffer. The Inyokern Senior Center is located approximately 0.24 mile southwest of the Project Site. Discussion of health risks and risks to sensitive receptors is addressed in detail below in Section 4.6 of the AQIA.

Potential Impacts to Visibility to Nearby Class 1 Areas

Visibility impact analyses are intended for stationary sources of emissions which are subject to the PSD requirements in 40 CFR Part 60; they are not usually conducted for area sources. Because the Project's PM₁₀ emissions increases are predicted to be less than the PSD threshold levels, an impact at any Class 1 area or military/airspace operation within 100 kilometers of the Project is extremely unlikely. Therefore, based on the Project's predicted less-than significant PM₁₀ emissions, the Project would be expected to have a *less than significant impact* to visibility at any Class 1 area or military/airspace operation.

Potential Impacts from Carbon Monoxide

Ambient CO concentrations normally correspond closely to the spatial and temporal distributions of vehicular traffic. Relatively high concentrations of CO would be expected along heavily traveled roads and near busy intersections. CO concentrations are also influenced by wind speed and atmospheric mixing.

A traffic study was completed for this Project (Ruettgers, 2026). According to the traffic study, impacted intersections and roadway segments are anticipated to operate at a LOS of C or better. Therefore, CO "hotspot" modeling was not conducted for this Project, and no concentrated excessive CO emissions are expected to be caused once the proposed Project is completed.

Predicted Health Impacts

Projects are considered for potential health risks wherein a new or modified source of Hazardous Air Pollutants (HAPs) is proposed for a location near an existing residential area or other sensitive receptor when evaluating potential impacts related to HAPs. The proposed Project would result in emissions of HAPs from construction and operational activities and would be located near existing residents; therefore, an assessment of the potential risk to the population attributable to emissions of hazardous air pollutants from the proposed Project is required.

EKAPCD has set the level of significance for carcinogenic risk at ten in one million, which is understood as the possibility of causing 10 additional cancer cases in a population of one million people. The level of significance for chronic non-cancer risk is a hazard index of 1.0. All receptors were modeled with a 4-year exposure for construction activities and 70-year exposure for operational emissions.

The carcinogenic risk and the health hazard index (HI) for chronic non-cancer risk at the point of maximum impact (PMI) do not exceed the significance levels of ten in one million (10×10^{-6}) and 1.0, respectively for the proposed Project.

The potential health risk attributable to the proposed Project is determined to be less than significant based on the following conclusions:

- Potential carcinogenic risk from the proposed Project is below the significance level of twenty in a million at each of the modeled receptors.
- The hazard index for the potential chronic non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.
- The hazard index for the potential acute non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.

Potential Impacts from Valley Fever

The proposed project has the potential to generate fugitive dust and suspend Valley Fever spores with the dust that could then reach nearby sensitive receptors. It is possible that onsite workers could be exposed to Valley Fever spores as fugitive dust is generated during construction.

With the implementation of the mitigation measures cited in Section 4.3, *Air Quality*, dust from the construction of the proposed project would not add significantly to the existing exposure level of people to this fungus, including construction workers, and impacts would be reduced to *less than significant* levels.

Potential Impacts from Asbestos

Naturally occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. According to information provided by the Department of Conservation Division of Mines and Geology, the project site is not located in an area where

naturally occurring asbestos is likely to be present (CDCDMG, 2025). Therefore, impacts associated with the exposure of construction workers and nearby sensitive receptors to asbestos would be *less than significant*.

Odor Impacts and Mitigation

An evaluation is typically conducted for both of the following situations: 1) a potential source of objectionable odors is proposed for a location near existing sensitive receptors, and 2) sensitive receptors are proposed to be located near an existing source of objectionable odors. A sensitive receptor is a location where human populations, especially children, senior citizens and sick persons, are present, and where there is a reasonable expectation of continuous human exposure to pollutants, according to the averaging period for ambient air quality standards, i.e. the 24-hour, 8-hour or 1-hour standards. Commercial and industrial sources are not considered sensitive receptors.

The proposed Project is not considered a source of objectionable odors or odorous compounds. Furthermore, there does not appear to be any significant source of objectionable odors in close proximity that may adversely impact the project site when it is in operation. As such, the proposed project will not be a source of any odorous compounds nor will it likely be impacted by any odorous source.

Impacts to Ambient Air Quality

An ambient air quality analysis was performed to determine if the proposed Project has the potential to impact ambient air quality through a violation of the ambient air quality standards or a substantial contribution to an existing or projected air quality standard.

Pre-Project concentrations of 24-hour PM₁₀, and 24-hour PM_{2.5}, and annual PM₁₀ exceed their respective ambient air quality standards. PM₁₀ and PM_{2.5} are evaluated in accordance with the recommended EKAPCD recommended significant impact level (SIL) (Note: EKAPCD has not adopted district-specific SILs; EKAPCD SILs are used by convention in EKAPCD-jurisdiction analyses, consistent with EKAPCD's accepted methodology.) for fugitive PM₁₀ and PM_{2.5} emissions.

Because the Project's refined modelled PM₁₀ and PM_{2.5} are below the EKAPCD's significance levels for 24-hour and annual concentrations (Note: EKAPCD has not adopted district-specific SILs; EKAPCD SILs are used by convention in EKAPCD-jurisdiction analyses, consistent with EKAPCD's accepted methodology.), the Project's contribution to potential violations of ambient air quality standards would be *less-than-significant*

Table 4-12 and **Table 4-13** restated from tables presented in the AQIA demonstrates that the maximum impacts attributable to the Project's construction emissions, when considered in addition to the existing background concentrations, are below the applicable ambient air standards for all criteria pollutants and are therefore considered *less than significant*.

Impacts to Greenhouse Gases and Climate Change

The proposed Project's construction and operational GHG emissions were estimated using the CalEEMod program, EMFAC2021 (v1.0.2), and the California Climate Action Registry General Reporting Protocol (Version 3.1).

The Project would not result in the emissions of hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), the other gases identified as GHG in AB32. The proposed Project would be subject to any regulations developed under AB32 as determined by CARB. As demonstrated in Table 4-14, the Project would emit less than EKAPCD's significance threshold of 25,000 MT per year. The proposed Project would therefore have a *less than significant* GHG impact.

In summary as discussed in Section 4.3, *Air Quality*, the Project's impacts to air quality with the implementation of stated mitigation measures have been determined to be *less than significant*.

Biological Resources (Section 4.4)

The biological analysis is based on the information, analysis, and conclusions presented in the Biological Analysis Report (BAR) prepared for the Project (Appendix D.1). The BAR defines the Biological Study Area (BSA) as the Project site and a surrounding 250-foot buffer where access was feasible (BAR Section 2.1; Figure 2-1).

The Project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other regional biological resource conservation plan (BAR Section 5.6). The Project does not overlap with any federally designated critical habitat. Although the Project is within the planning areas of the draft West Mojave Plan and the Desert Renewable Energy Conservation Plan (DRECP), the DRECP was finalized in 2016, and this first Phase of the DRECP concerns only BLM-managed lands. As such, DRECP requirements do not apply to the Project.

As discussed in Section 4.4, *Biological Resources*, The biological resources analysis is based on the Biological Analysis Report (BAR) prepared for the Project and included as Appendix D.1. The BAR defines the Biological Study Area (BSA) as the Project Site and a surrounding 250-foot buffer where access was feasible (BAR Section 2.1; Figure 2-1).

The Project Site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other regional biological resource conservation plan (BAR Section 5.6). The Project does not overlap with federally designated critical habitat. Although the Project is within the planning areas of the West Mojave Plan and the Desert Renewable Energy Conservation Plan (DRECP), the DRECP applies to BLM-managed lands and therefore does not apply to the privately owned Project Site.

The BAR determined that no sensitive natural communities are present within the Project footprint (BAR Section 5.2). No jurisdictional waters or wetlands were identified within the Project site. One ephemeral drainage feature was observed near the electrical interconnection route; however, the BAR concluded that the Project would avoid this feature and would not impact jurisdictional aquatic resources (BAR Sections 4.1.5 and 5.3; Figures 4-1 and 4-2).

Other key findings in the BAR and as more particularly discussed in Section 4.4 (*Biological Resources*) include:

Special-Status Plant Species: Of the thirteen special-status plant species identified in BAR Table 5-1, three species have the potential to occur on the Project site: Barstow woolly sunflower (*Eriophyllum mohavense*), Charlotte's phacelia (*Phacelia nashiana*) and Latimer's woodland gila (*Saltugilia latimeri*).

Other Protected Plant Species: Silver cholla (*Cylindropuntia echinocarpa*) and beavertail cactus (*Opuntia basilaris*), are plant species protected under the California Desert Native Plants Act (CDNPA) and have potential to be present on the BSA. Five (5) silver cholla individuals were observed on the eastern portion of the Project site (BAR Figure 5-1). Beavertail cactus is not listed on any State or federal lists as threatened or endangered. The removal of individual silver cholla or beavertail cacti would require a California Desert Native Harvest Permit issued by the Kern County Agricultural Commissioner.

Special-Status Animal Species: The literature and database review identified sixteen (16) special-status animal species known or with the potential to occur in the vicinity of the Project (see BAR Appendix A). Five (5) of the sixteen special-status species were determined to be absent from the BSA due to lack of suitable habitat or the BSA being outside of the species range. Eleven (11) of the sixteen special-status species have the potential to occur on-site (see (BAR Sections 5.1.2 and 5.1.3); BAR Table 5-1 are listed below:

- Crotch's Bumble Bee (*Bombus crotchii*) - Status: State Candidate Endangered:
- Desert Tortoise (*Gopherus agassizii*) - Status: Federally Threatened, State Endangered
- Golden Eagle (*Aquila chrysaetos*) - Status: State Fully Protected
- Swainson's Hawk (*Buteo swainsoni*) - Status: State Threatened
- Western Burrowing Owl (*Athene cunicularia ssp. Hypugaea*) - Status: State Candidate Endangered, Species of Special Concern
- Prairie Falcon (*Falco mexicanus*) - Status: State Watch List
- Loggerhead Shrike (*Lanius ludovicianus*) - Status: Species of Special Concern
- Le Conte's Thrasher (*Toxostoma lecontei*) - Status: Candidate Species.

[Note that as of April 2026, Le Conte's Thrasher is considered a Candidate Species for protection under the California Endangered Species Act (CESA) due to rapid population declines and significant habitat loss. With a global population estimated at under 71,000, this desert songbird has lost over half its population in the past 50 years, largely driven by development in Southern California. The BSA, which was prepared prior to the California Fish and Game Commission's revision of status, designated Le Conte's Thrasher as a "Species of Special Concern."]

- American Badger (*Taxidea taxus*) - Status: Species of Special Concern:
- Desert Kit Fox (*Vulpes macrotis arsipus*) - Status: CFGC Protected:
- Mohave Ground Squirrel (*Xerospermophilus mohavensis*) - Status: State Threatened

Other Protected Wildlife Species – Nesting Birds: Habitat within the BSA supports nesting native birds that are protected by the federal MBTA and the CFGC. The reconnaissance surveys were conducted outside the nesting bird season (February 1 to September 15). Although the surveys included

conducting searches for inactive bird nests, none were found. Bird species may construct nests within the BSA before or even after construction activities begin. Various species of birds will construct nests in a variety of substrates and structures, and nests may become established in trees or shrubs, in manmade structures, and directly on the ground. The BSA supports several types of habitats, substrates, and structures suitable for nesting birds, and there is a high potential that birds will nest within the BSA during the nesting season.

Sensitive Natural Communities: The database and literature review did not identify any sensitive plant communities known to occur or with the potential to occur within the vicinity of the BSA, and none were present during the reconnaissance surveys. The Project does not overlap with any federally designated critical habitat, and there is no identified critical habitat within 10 miles of the BSA.

Jurisdictional Aquatic Resources: Based on the NHD, NWI, and on-site ground confirmation, there are no identified aquatic resources within the Project site. However, one ephemeral water feature is present within the BSA along the edge of the roadway. (Figure 4-1). The proposed Project activities will not impact the existing water feature and, therefore, will not require any additional permitting or consultation. If impacts to the water feature are anticipated, a formal jurisdictional delineation for submittal to State and federal agencies should be conducted, and additional permitting may be required.

Wildlife Movement: Wildlife movement corridors, also referred to as dispersal corridors or landscape linkages, are generally defined as linear features along which animals can travel from one habitat or resource area to another. The Project is situated within the Pacific Flyway, which is a significant avian migration route that covers a wide swath of land along the western Americas from Patagonia to Alaska.

The BAR identifies avoidance and minimization measures, which are incorporated in this Application, designed to reduce potential impacts to biological resources to less-than-significant levels (BAR Section 6.0). As more particularly described in the BAR, these measures include:

- MM 4.4-1: Pre-Construction Special-Status Plant Surveys.
- MM 4.4-2: Avoidance of Listed Special-Status Plants.
- MM 4.4-3: Pre-Construction Surveys for Crotch's Bumble Bee.
- MM 4.4-4: Pre-Construction Surveys for Burrowing Owl, Desert Tortoise, American Badger, and Desert Kit Fox.
- MM 4.4-5: Avoidance of Burrowing Owl Burrows and Burrowing Owl ITP.
- MM 4.4-6: Avoidance of American Badger and Desert Kit Fox Dens.
- MM 4.4-7: Mohave Ground Squirrel ITP.
- MM 4.4-8: Avoidance and Minimization Measures for Desert Tortoise, Burrowing Owl, American Badger, Desert Kit Fox, and Mohave Ground Squirrel.
- MM 4.4-9: Pre-Construction Surveys for Nesting Birds.
- MM 4.4-10: Biological Monitoring.
- MM 4.4-11: Worker Environmental Awareness Training.

As discussed in Section 4.4, *Biological Resources*, the Project's impacts to biological resources with the implementation of stated mitigation measures have been determined to be *less than significant*.

Cultural Resources (Section 4.5)

At the Project Site, there are no buildings, structures, objects, sites, and districts worthy of preservation because of their significance in American history, architecture, archeology, engineering, and culture listed in the National Register of Historic Places under the National Historic Preservation Act of 1966.

As noted the Cultural Resources Report a survey of six (6) previously recorded resources were successfully located and updated. All previously identified resources are historic in age, lack integrity, and are recommended not eligible for inclusion on the CRHR. As noted in this section, no new archaeological sites or historic properties were discovered within the Project Site. no human remains, including those interred outside of dedicated cemeteries, were discovered within the Project Site. Overall, given the local geomorphic setting, mapped soils, and observed disturbance, the potential for buried cultural resources and tribal cultural resources was assessed as low.

As discussed in Section 4.5, *Cultural Resources*, the Project's impacts to cultural resource with the implementation of stated mitigation measures have been determined to be *less than significant*.

Energy (Section 4.6)

The Project is designed to achieve a best-in-class PUE of approximately 1.41. As described in Section 4.6.9, the Project incorporates extensive energy efficiency measures consistent with and exceeding the mandatory nonresidential measures of California Building Standards Code, Title 24, Part 6 (California Building Energy Efficiency Standards), including HVAC commissioning, lighting controls, and sub-metering requirements.

As stated in the above sub-section on Energy Efficiency, the Project incorporates energy efficiency measures throughout its conceptual design to minimize total energy consumption, improve operational PUE, and reduce environmental impacts. The energy efficiency measures described in this Application are consistent with industry best practices as established by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) TC 9.9, the Green Grid, and the U.S. Environmental Protection Agency (EPA) ENERGY STAR for Data Centers program.

At full buildout the facility is estimated to consume approximately 867,240 MWh/year of electrical energy ($99 \text{ MW} \times 8,760 \text{ hours}$), which is proportionate to the large-scale computing infrastructure served and represents efficient use relative to the economic and societal utility provided.

On-site fossil fuel combustion is limited to backup generator testing and emergency operation (estimated ~720 aggregate hours/year, approximately 720 MWh/year of generator output). No aspect of the facility design reflects wasteful or unnecessary energy consumption.

The Project-related subtransmission line corridor would connect the main facility to the existing SCE Inyokern Substation interconnection area via an overhead 115 kV transmission line within a 30-foot easement corridor already influenced by roadway and utility infrastructure. Based on the Notice Area Map (Appendix B, Section (a)(1)(E)) and Figure T-4, no incompatible land uses have been identified within 0.25 mile of the linear facility corridor.

As discussed in Section 4.6, *Energy*, the Project's impacts to energy with the implementation of stated mitigation measures have been determined to be *less than significant*.

Geology and Soils (Section 4.7)

The Project is subject to the following federal and state statutes, as more particularly discussed in the Regulatory Settings component of Section 4.7, *Geology and Soils*:

National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402) pursuant to the Federal Clean Water Act (CWA) (33 USC 1251 et seq.), Projects that disturb 1 acre or more are required to obtain NPDES coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction Activity (Construction General Permit), Order No. 2009-0009-DWQ. The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which includes best management practices (BMPs) to regulate stormwater runoff, including measures to prevent soil erosion. Requirements of the CWA and associated SWPPP are described in further detail in Section 4.10, Hydrology and Water Quality.

Earthquake Hazards Reduction Act which was enacted in 1977 to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the Act established the National Earthquake Hazards Reduction Program (NEHRP). The NEHRP designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities.

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (formerly the Special Studies Zoning Act) regulates the development and construction of buildings intended for human occupancy to avoid hazards associated with surface fault rupture. The California Building Code (CBC) has been codified in the California Code of Regulations (CCR) as Title 24, Part 2.

The Seismic Hazards Mapping Act of 1990, in accordance with PRC Chapter 7.8, Division 2, the CGS is directed to delineate seismic hazard zones. The purpose of the Act is to reduce the threat to public health and safety and minimize the loss of life and property by identifying and mitigating seismic hazards, such as those associated with strong ground shaking, liquefaction, landslides, other ground failures, or other hazards caused by earthquakes. In accordance with the Seismic Hazards Mapping Act, site-specific geotechnical investigations must be performed prior to permitting most urban development projects within seismic hazard zones.

The California Building Code (CBC) has been codified in the California Code of Regulations (CCR) as Title 24, Part 2. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards.

Public Resources Code, Section 5097.5, which prohibits the removal of any paleontological site or feature without permission of the jurisdictional agency, defines the removal of paleontological sites or features as a misdemeanor, and requires reasonable mitigation of adverse impacts to paleontological resources resulting from development.

The Porter-Cologne Water Quality Control Act, in cooperation with the CWA, established the SWRCB. The SWRCB and the nine RWQCBs are responsible for protecting California's surface water and groundwater supplies. Section 13000 of the act directs each RWQCB to develop Water Quality Control Plans for all areas in its region, to designate the beneficial uses of California's rivers and groundwater basins; these plans are the basis for each board's regulatory program.

The Basin Plan gives direction on the beneficial uses of state waters in Region 7, within which the Project Site is located, describes the water quality that must be maintained to support such uses, and includes programs, projects, and other actions necessary to achieve the standards established in the Basin Plan. The Lahontan RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to individuals, communities, or businesses whose waste discharges may affect water quality. These requirements are state Waste Discharge Requirements for discharge to land or federally delegated NPDES permits for discharges to surface water. Responsibility for implementing CWA Sections 401–402 and Section 303(d) is also outlined in the Porter-Cologne Water Quality Control Act.

State Regional Water Quality Control Board, Stormwater General Construction Permit, which includes the NPDES General Permit for Storm Water Discharges Associated with Construction Activities (Construction Activities General Permit) (SWRCB Order No. 2012-0006-DWQ, NPDES No. CAS000002). The General Construction Permit requires that construction sites with 1 acre or greater of soil disturbance, or less than 1 acre but part of a greater common plan of development, apply for coverage for discharges under the General Construction Permit by submitting a Notice of Intent for coverage, developing a stormwater pollution prevention plan (SWPPP), and implementing best management practices to address construction site pollutants.

As discussed in Section 4.7, Geology and Soils, the Project's impacts to geology and soils with the implementation of stated mitigation measures have been determined to be less than significant.

Greenhouse Gas Emissions (Section 4.8)

The Project's construction emissions represent 83 percent of total CO₂e emissions, while operational emissions represent 17 percent of total CO₂e emissions. As shown in Table 4.8-2, the total construction-related CO₂e emissions annualized over a default project lifetime (35 years) is equivalent to 16 MTs per year of CO₂e. This value is below the EKAPCD threshold of 25,000 MTs per year of CO₂e. Therefore, the project's contribution to climate change would not be cumulatively considerable and the project would not conflict with the State's goal to reduce GHG emissions to 1990 levels by 2020.

In addition, operational energy uses associated with auxiliary power consumption by the data center campus would be offset by the proposed 1 MW rooftop and carport solar PV facilities, it would not result in substantial GHG emissions due to the burning of fossil fuels once in operation. RBIDC is a grid-powered data center that consumes approximately 867,240 MWh/year of electricity at 99 MW capacity; it is not a power plant. On-site fossil fuel combustion is limited to emergency backup generator testing and operation (approximately 720 aggregate hours/year); the Project also includes a 1 MW auxiliary rooftop and carport solar PV system to offset on-site ancillary power loads. As demonstrated in the GHG analysis (Section 4.8), total construction-

related CO₂e emissions annualized over the project lifetime are below the EKAPCD threshold of 25,000 MT/year of CO₂e, and operational GHG emissions are limited to the modest combustion associated with periodic emergency generator testing and employee vehicle trips.

As discussed in Section 4.8, *Greenhouse Gas Emissions*, the Project's impacts to Greenhouse gas emissions with the implementation of stated mitigation measures have been determined to be *less than significant*.

Hazards and Hazardous Materials (Section 4.9)

The Project involves routine transport, use, and storage of hazardous materials during the construction and operation and maintenance phases. Materials are common to large data center and industrial developments and would be managed under HMBP, SPCC, fire code, and waste management requirements.

SPCC Plan — 40 CFR Part 112

However, substantial fuel and fluid inventories make accidental release a relevant CEQA concern.

The Hazardous Waste Control Act created the State Hazardous Waste Management Program, which is similar to but more stringent than the federal RCRA program. The act is implemented by regulations contained in Title 26 CCR, which describes the following required aspects for the proper management of hazardous waste.

The Project's 600,000-gallon diesel AST inventory exceeds the 1,320-gallon SPCC aboveground threshold by approximately 455-fold, clearly triggering the requirement for a PE-certified SPCC Plan prior to oil storage operations.

Proposed mitigation measures, among others, include: a PE-certified SPCC Plan with secondary containment; UL-2085 double-wall ASTs; no direct storm drain outlet; surface drainage to retention basin; SWPPP/BMP measures; fire detection and suppression; defined emergency access; and Kern County Fire Station 83 coordination. The BESS thermal runaway risk would be addressed through NFPA 855 compliance and pre-incident planning.

As discussed in Section 4.9, Hazards and Hazardous Materials, the Project's impacts to hazards and hazardous materials with the implementation of stated mitigation measures have been determined to be *less than significant*.

Hydrology and Water Quality (Section 4.10)

According to Hydrology Study prepared for the Project (Appendix E.1), hydraulic modeling confirms that the data center, subtransmission line, and substation are not located in areas subject to flood accumulation from Little Dixie Wash or existing watercourses. Consequently, construction of these project components will not increase flood heights or velocities, in compliance with the Kern County Floodplain Management Ordinance, Appendix F. However, the project site elements shall comply with the recommended base flood elevation of 1.0 ft to comply with FEMA Floodplain Map Zone A requirements.

Given the Project's implementation of onsite retention and compliance with Kern County Standards, the Project is not expected to contribute to cumulatively considerable increase in downstream peak flows, flood risk, or pollutant loading when combined with other reasonably foreseeable projects in the area. results indicate that floodwater from Little Dixie Wash does not reach the project area (see Figure 4-4, Section 4.10, *Hydrology and Water Quality*).

In respect to water quality, potential construction-related pollutant sources include sediment, fuels, lubricants, and concrete washout. Operational pollutant sources may include vehicle fluids and equipment oils. The project will implement BMPs consistent with the Construction General Permit and SWPPP to minimize pollutant discharge, including perimeter controls, stabilize entrances, sediment basins where required, and spill prevention/response measures.

Spill prevention and response measures would be implemented during construction and operation to prevent pollutants from being mobilized by stormwater. Fueling and maintenance activities would be conducted in designated areas with secondary containment and appropriate spill kits. Any spills would be promptly contained and cleaned up to prevent discharge to stormwater conveyances or offsite areas. Further, the Applicant will operate and maintain stormwater conveyance and storage facilities for the life of the project. Maintenance activities will include removal of sediment and debris, repair of erosion, and inspection of outlet structures and spillways. Inspections shall occur at least annually and following major storm events, with corrective actions documented.

Moreover, according to the Water Supply Assessment (WSA) (Appendix E.3): This WSA has provided the data and analysis needed to verify that a sufficient Project water supply is physically available (Section 3.1) and that the Project water supply is in accord with SB 610's normal year/dry-year/multiple-dry year requirements, sufficient (Section 3.2). The maximum water demand for this Project is estimated at 49.10 acre-feet/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. This conclusion is based on the fact that maximum water demand for this Project is estimated at 49.10 acre-feet (16 MG)/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. Compliance with the DWR Guidelines for the Project is included in Appendix C [of the WSA]. It is recommended that the County of Kern conclude that the proposed water supplies for the Project are sufficient to meet the projected Project water demand.

As discussed in Section 4.10, *Hydrology and Water Quality*, the Project's impacts to the hydrology and water quality characteristics of the Project site and surrounding areas, with the implementation of stated mitigation measures have been determined to be *less than significant*.

Mineral Resources (Section 4.12)

The Project Site is currently undeveloped and is located in the community of Inyokern. The community of Inyokern does not have any designated mineral resource areas. The closest potential mineral resource areas, as designated by the County as 8.4, Mineral and Petroleum (Minimum 5-Arce Parcel Size), are approximately 11 miles to the southeast of the Project Site (USGS, 2020).

There are no applicable federal regulations for this issue area. The Project Site is located on privately owned land and is not subject to Bureau of Land Management (BLM) land use planning requirements applicable to federal lands. Federal law does not regulate the land use designation of mineral resources on private lands; that authority resides with the State of California and Kern County

Table 4.12-01 presented in and restated from Section 4.12, *Mineral Resources*, is based on a report by Brett Koehler, published by the California Geological Survey (CDMG) (OFR 99-15 or Mineral Land Classification of Southeastern Kern County, California), that classifies land based on mineral potential under the Surface Mining and Reclamation Act (SMARA). Table 4.12-02 presented in Section 4.12, *Mineral Resources* demonstrates the classified mineral resources within Kern County that are part of the MRZ-2 group and, therefore, have a demonstrated mineral significance (as opposed to the MRZ-3 group, which has an undetermined mineral significance).

There are no known oil, gas, or geothermal wells on the Project Site (California Department of Conservation [DOC], 2017). Based on the Kern County MRZ exhibit prepared for this Application (Figure 4.12-1), the Project Site vicinity near Inyokern is not depicted within a mapped MRZ-2 area. A review of the California Geological Survey (CGS) Mine and Mineral Information System (MMIS) records for the Inyokern area identifies no active permitted surface mines within or immediately adjacent to the Project Site vicinity (CGS, 2024). No active commercial extraction of sand, gravel, or other mineral resources has been identified in the immediate Project area based on available CGS MMIS records and the DOC MRZ mapping reviewed for this Application (CGS, 2024; DOC, 2024).

As discussed in Section 4.12, *Mineral Resources*, the Project's impacts to mineral resources with the implementation of stated mitigation measures have been determined to be *less than significant*.

Noise (Section 4.13)

As discussed in Section 4.13, *Noise*, and the associated studies and references a Noise Analysis was prepared for the Project (Appendix G.1) utilizing the following methodologies:

- **Construction Noise:** Evaluated using the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM, FHWA-HEP-05-054) and Federal Transit Administration (FTA) construction noise guidance criteria for residential land uses (FTA, 2018). Construction noise levels were modeled for each of the three principal construction phases.
- **Operational Noise:** Calculated using manufacturer-supplied equipment sound levels summarized in Appendix G.1 (Appendix D) and standard distance attenuation (–6 dB per doubling of distance). Operational noise was calculated at all eight analyzed receiver locations (R-1 through R-8). For a conservative worst-case evaluation, the Noise Analysis assumed all 40 emergency generators could operate simultaneously and continuously over a 24-hour period.

Table 4.11-11: Construction Noise Levels by Phase, dBA Leq (Restating Appendix G.1, Table V)

Construction Phase	500 Feet ¹	750 Feet ¹	1,000 Feet ¹
Phase 1 — Site Preparation, Earthwork, and Grading	64	61	58
Phase 2 — Structural Construction, Utilities, and Paving	61	57	55
Phase 3 — Mechanical, Electrical, and Commissioning	60	56	54
FTA Residential Threshold (dBA Leq)	80	80	80
Threshold Exceeded?	No	No	No

¹ Distances measured from the approximate geometric center-point of the overall Project construction area.
Source: FHWA RCNM; WJV Acoustics, Inc.

Construction

Construction of the Project is anticipated to begin in 2027 and would require approximately 48 months to complete. Construction activities are organized into three principal phases: (1) site preparation, earthwork, and grading; (2) structural and building shell construction; and (3) mechanical, electrical, and data hall systems installation, followed by commissioning and closeout.

Construction activities would be limited to daytime hours consistent with Kern County Code §8.36, which restricts construction within 1,000 feet of a residence to the hours of 6:00 a.m. to 9:00 p.m. on weekdays and 8:00 a.m. to 9:00 p.m. on weekends. Construction would generally occur between 7:00 a.m. and 6:00 p.m., Monday through Friday. Any work outside these hours would be coordinated with the appropriate agencies and would conform to the applicable County ordinance.

The Noise Analysis estimated construction noise levels at noise-sensitive receptors using the FHWA RCNM. Construction noise levels were modeled from the approximate geometric center-point of the Project construction area at setback distances of 500 feet, 750 feet, and 1,000 feet. The nearest residential receptors are located at distances of approximately 1,000 feet or greater from the construction center-point. Peak noise levels for each of the three construction phases are presented in Table 4.13-2 below, restating Appendix G.1 Table V. At a distance of 1,000 feet, modeled peak construction noise levels range from approximately 54 to 58 dBA Leq — well below the applicable FTA threshold of 80 dBA Leq at residential land uses.

To minimize temporary noise effects at sensitive receptors, the Project would implement the following construction noise best management practices (BMPs) and site controls:

- **Work Hours:** Conduct construction activities during daytime hours consistent with Kern County Code §8.36; schedule the loudest activities during mid-day hours where feasible.
- **Equipment Mufflers and Maintenance:** Require properly functioning mufflers and sound control devices on all internal combustion equipment; maintain equipment in good working order.
- **Idling Limits:** Enforce no-idling practices for construction equipment and delivery trucks consistent with applicable CARB diesel idling restrictions for compression ignition engines.
- **Staging and Siting:** Locate stationary construction equipment as far from noise-sensitive receptors as feasible; use building footprints, grading berms, or temporary features as shielding where feasible.
- **Temporary Noise Barriers (as needed):** Deploy temporary noise control barriers if construction must occur close to noise-sensitive receptors or if complaint monitoring indicates a need for additional controls.
- **Notification and Complaint Response:** Designate a disturbance coordinator to receive and respond to noise complaints during construction and implement corrective actions such as equipment relocation, barrier installation, or scheduling changes.

Operation

Operational noise sources include the emergency generators, cooling towers, chillers, transformers, and other outdoor mechanical equipment described in Section 4.13.5.2. The generators (40 Caterpillar 3516E units) would be operational only during emergencies (utility power outages) or for periodic maintenance and testing. Under typical operating conditions, the generators would not be operational.

The Noise Analysis calculated worst-case operational noise levels at all eight analyzed receiver locations (R-1 through R-8) assuming all 40 generators and all other mechanical equipment operate simultaneously and continuously over a 24-hour period. Results are presented in Table 4.13-3 below, restating Appendix G.1 Table VII. Under this conservative worst-case assumption, calculated operational noise levels range from 43 to 52 dBA Leq and 49 to 58 dB Ldn at the analyzed receiver locations. These levels do not exceed the Kern County exterior noise level standard of 65 dB Ldn at any off-Site noise-sensitive receptor and do not exceed existing ambient noise levels.

Ground Borne Vibration

Construction

Construction activities have the potential to generate ground borne vibration from heavy equipment operation. The Noise Analysis evaluated construction vibration using the Caltrans Transportation and Construction Vibration Guidance Manual (April 2020). Based on standard vibration source levels normalized to 25 feet and propagated to the setback distances applicable to the Project using the Caltrans attenuation formula, vibration levels from anticipated construction equipment at the nearest residential receptors (~1,000 feet or greater from the construction center-point) would be well below the Caltrans annoyance potential criteria for residential structures under both transient and continuous source categories (Table I of the Noise Analysis). Vibration levels would not exceed applicable damage potential threshold criteria (Table II of the Noise Analysis).

Operation

The Project does not include operational activities that would generate significant ground borne vibration. Emergency generators and mechanical equipment produce airborne noise, not meaningful ground borne vibration at the distances applicable to the nearest receptors.

As discussed in Section 4.13, *Noise*, the Project's impacts to noise with the implementation of stated mitigation measures have been determined to be less than significant.

Population and Housing (Section 4.14)

Construction

Construction of the Project would occur over an approximately 48-month period. As documented in the Socioeconomic Analysis (Section 2.3 and Tables SEJ-1 and SEJ-1A), construction would require an average on-site workforce of approximately 300 workers and a peak on-site workforce of approximately 600 workers (peak month: Month 20, 592 workers). The workforce metrics and relocation estimates are summarized in Table 4.14-11 below.

Table 4.14-11. Construction Workforce and Population Effect Summary (Planning-Level)

Metric	Value	Source
Average on-site workforce	~300 workers/month	Socioeconomic Analysis, Table SEJ-1B
Peak on-site workforce	~600 workers (Month 20, 592 workers)	Socioeconomic Analysis, Table SEJ-1B
Total job-months (48-month total)	14,401	Socioeconomic Analysis, Table SEJ-1B

Total job-years	~1,200	Socioeconomic Analysis, Table SEJ-1B
Expected household relocation	0 to 2% of peak workforce (~0 to 12 persons)	Socioeconomic Analysis, Section 4.1
Primary labor source	Kern County and regional union labor pools	Socioeconomic Analysis, Section 3.6
Permanent operations workforce	~30 to 60 employees	Socioeconomic Analysis, Section 2.4

Source: Socioeconomic Analysis, Tables SEJ-1, SEJ-1A, SEJ-1B.

The Applicant intends to utilize primarily local union labor drawn from Kern County and the broader Southern and Central California labor market; accordingly, household relocation associated with construction is expected to be minimal — approximately 0 to 2 percent of the peak workforce, representing approximately zero to 12 persons at peak (Socioeconomic Analysis, Section 4.1). Non-local specialized personnel would be present only for limited durations and would rely on short-term lodging rather than permanent housing. At the maximum relocation estimate, this would represent less than 1.3 percent of the Inyokern CDP’s existing population of approximately 958 persons — a temporary effect of negligible magnitude.

Construction-related population effects would be temporary and limited. Workers not residing locally would be expected to rely primarily on regional commuting and lodging patterns in Ridgecrest and the broader Indian Wells Valley rather than establishing permanent households in Inyokern. The Project does not include residential development and would not provide excess infrastructure capacity intended to support unrelated off-site development (Socioeconomic Analysis, Section 6.0). All utility infrastructure improvements required to serve the Project would be Applicant-funded and sized to serve the Project only.

Operation

Upon completion, the Project would employ approximately 30 to 60 permanent operations employees, supplemented by contract personnel as needed (Socioeconomic Analysis, Section 2.4). Because the Project would not include residential uses and the long-term workforce would be comparatively small, operation of the Project would not create substantial new housing demand or measurable population growth in the Project vicinity.

The Project would not provide excess infrastructure capacity intended to support unrelated off-site development; accordingly, the Project would not indirectly induce substantial off-site population growth or unplanned residential development.

Potential to Displace Existing People or Housing

The Project Site does not contain residential uses or occupied housing (Socioeconomic Analysis, Section 2.1). Construction activities would occur entirely on a currently unoccupied industrial site. No housing would be demolished or removed during construction.

Moreover, operation of the Project would not remove existing housing, demolish occupied residential units, or displace residents. Because no housing or residents would be displaced, the Project would not necessitate the construction of replacement housing elsewhere.

As discussed in Section 4.14, *Population and Housing*, the Project's impacts to population and housing in the Project area with the implementation of stated mitigation measures have been determined to be *less than significant*.

Public Services (Section 4.15)

The proposed Project's potential impacts to public services include: (1) evaluation of existing fire and law enforcement services and personnel for the stations and substations serving the Project site; (2) determination of whether existing services and personnel are capable of servicing the proposed Project in addition to the existing population and building stock; and (3) determining whether the proposed Project's contribution to the future service population would cause fire or sheriff station(s) to operate beyond service capacity.

Fire Protection and Emergency Medical Services

The Project's construction workforce is estimated to peak at approximately 592 workers and average approximately 300 workers over the 48-month construction period. Most construction workers are anticipated to commute daily from areas within Kern County, and especially the City Ridgecrest, rather than relocate to Inyokern. Household relocation is estimated at approximately 0 to 2 percent of the peak workforce. As described above, the Project site is outside of areas identified by CAL FIRE as having substantial or very high fire risk.

The Project site would be designed with on-site perimeter access roads encircling the 50-acre campus for emergency vehicle circulation and a Knox Box rapid entry system at the secured main gate on SR-178. Primary access is from SR-178 (West Inyokern Road) with secondary emergency access from Brown Road on the western boundary.

Construction activities could introduce fire risks such as sparks, hot work, and fuel to the site. Construction would also generate truck and employee traffic along haul routes, which could temporarily increase demand for fire protection response. Service demands per temporary employee are less than service demands per resident; nevertheless, the presence of construction personnel would result in a temporary increased demand for fire protection and emergency medical services.

Upon completion, the Project would employ approximately 30 to 60 permanent employees at the facility, supplemented by contract service personnel. Unlike a large residential development or

population-generating use, the permanent staffing level is modest and would generate limited ongoing demand for fire protection and EMS services.

The facility would be designed in accordance with the California Fire Code and Kern County Fire Code. Project fire suppression systems would include VESDA aspirating smoke detection, Novec/FM-200 clean-agent suppression in white-space and UPS rooms, pre-action sprinklers in mechanical and electrical rooms, and wet-pipe NFPA 13 sprinklers in office areas, along with on-site fire pumps, fire water storage tanks, and hydrants per NFPA 20. The facility would also maintain 24/7 on-site security monitoring. These design features significantly reduce the likelihood of a fire requiring KCFD response and limit the need for emergency medical services during operations.

As required by Mitigation Measure MM 4.15-1, the project proponent would prepare and implement a Fire Safety Plan that contains notification procedures and emergency fire precautions consistent with the 2016 California Fire Code and Kern County Fire Code. Following mitigation, impacts to fire protection services would be less than significant during project construction.

Additionally, as required by Mitigation Measure MM 4.15-2, the Applicant would prepare and implement a Construction Safety Plan for construction activities consistent with the California Fire Code, Kern County Fire Code and general best practices for emergency service and reduction in vandalism.

Applicant will also implement MM 4.15-3, pursuant to the Kern County General Plan and the Inyokern Specific Plan, the project proponent would be required to pay its proportional share of the local costs of infrastructure improvements required to service such development.

Following implementation of Mitigation Measure MM 4.15-1, MM 4.15-2 and MM 4.15-3, impacts to fire protection and emergency medical services during Project construction would be *less than significant*.

Law Enforcement Protection

The Kern County Sheriff Office (KCSO) provides primary law enforcement protection services for the Project site and surrounding areas through the Ridgecrest Substation, located approximately 15 miles southeast of the Project site. During construction, the Project could temporarily increase service needs from KCSO. The presence of construction workers and equipment could attract vandals or present other security risks. Worker commutes could potentially increase traffic volumes on SR-178 and HWY-395, which could temporarily affect CHP patrol operations.

Security fencing would be installed around the site perimeter and areas requiring controlled access. The additional volume of vehicles associated with construction worker commutes would be temporary and is not expected to adversely affect traffic conditions beyond those analyzed in Section 4.16, Transportation and Traffic.

New or physically altered KCSO facilities would not be required to accommodate the Project during construction. Impacts to law enforcement protection services during construction would be *less than significant*.

Project operation would employ approximately 30 to 60 permanent employees and contract service personnel. The facility would include controlled access at all entry points, 24/7 on-site security monitoring, perimeter fencing, and CCTV surveillance, which would substantially reduce the need for sheriff surveillance and response during operations.

Periodic commutes of operations and maintenance workers would generate minor traffic volumes and would not be expected to adversely affect KCSO response times or CHP patrol operations. New or physically altered KCSO facilities would not be required to accommodate the Project. MM 4.15-2 provides for details of the Construction Safety Plan to ensure coordination with the Kern County Sheriff and reduce rural theft and vandalism.

Following implementation of Mitigation Measure MM 4.15-2 impacts to law enforcement services during Project construction and operations would be *less than significant*.

Schools, Parks, and Other Public Facilities

Upon completion, the Project would employ approximately 30 to 60 permanent employees. This small permanent operations workforce, combined with the absence of residential uses, means that the Project would not generate measurable enrollment increases at SSUSD schools or meaningful additional demand on parks, libraries, or other public facilities. The Project would pay applicable statutory school facilities fees at the time of building permit issuance as required by California Education Code Section 17620, offsetting any incremental impact on school facilities. No new or physically altered schools, parks, libraries, or other public facilities would be required to accommodate the Project. No mitigation measures would be required and impacts to Schools, Parks, and Other Public Facilities would be less than significant.

As discussed in Section 4.15, Public Services, the Project's impacts to public services in the Project area with the implementation of stated mitigation measures would be *less than significant*.

Transportation (Section 4.16)

Designated State Scenic Highways: As more particularly described in the *Aesthetics* discussion (Section 4.1), according to the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, there are no Designated State Scenic Highways within Kern County (see *Aesthetics*, Section 4.1.3, Regulatory Setting, for more information on the State Scenic Highway Mapping System). The closest Eligible Scenic Highways are SR-14 (portion north of Business East Route 58) located approximately 3.7 miles to the west of the project site and Business East Route 58 (portion east of SR-14) located 43.2 miles south of the project site (Caltrans, 2017). Therefore, impacts regarding designated and eligible state scenic highways would be *less than significant*.

Non-Motorized ("Active") Transportation under the 2018 Kern Region Active Transportation Plan (ATP) and Kern County General Plan Circulation Element: The community of Inyokern is treated as part of the general unincorporated area plans of the ATP not part of the special focus areas for bicycling or pedestrian walkway facilities. There are two Class III bicycle facilities in the immediate vicinity of the project site, which are located on SR-178 between SR-14 and Brown Road and on Brown Road between US 395 and South China Lake

Boulevard. Pedestrian walkways proximate to the Project Site consists of unimproved, dirt pathways along paved roadways. Therefore, impacts regarding non-motorized transit, bicycle, and/or pedestrian facilities would be less than significant.

Public Transportation: Both temporary construction and permanent operations and maintenance workers will have access to the Regional Transit System. The nearest bus stop providing access to Route 227 is located adjacent to the project site on SR-178 between Reeves Avenue and West Graaf Avenue. The nearest bus stop providing access to Route 230 is located approximately 350 feet west of the project site on SR-178 at Broadway. There is no direct access to the regional railway system. Therefore, impacts regarding public transportation and railway facilities would be less than significant.

Kern County Airport Land Use Compatibility Plan (ALUCP) — Inyokern Airport: The ALUCP establishes height, land use compatibility, and safety zone criteria for projects within the Inyokern Airport influence area. The Project Site is located in ALUCP Zone C, the outer boundary of the Common Traffic Pattern Zone. The Project use is consistent with Zone C compatibility standards.

Kern Council of Governments 2022 Regional Transportation Plan/Sustainable Communities Strategy: Kern COG does not have jurisdiction over land use planning, however, the 2022 RTP/SCS sets forth general policies/actions which apply to certain types of development and are intended to achieve the RTP/SCS’s highest goal to facilitate mobility. The proposed Project involves changes including the vacation of roadways and easements and the construction of access driveways connecting to public roads and increases in traffic during construction and operations and maintenance phases to the Kern County roadway network, which combined could affect Kern COG’s ability to achieve the goals set forth in the 2022 RTP/SCS. The following **Table 4.11-12** provides an analysis of the proposed Project’s consistency with applicable, policies/actions set forth in the 2022 RTP/SCS.

Table 4.11-12: Proposed Project Consistency with Applicable Policies/ Actions of the Kern COG 2022 RTP/SCS

Policy/Action	Project Consistency
4—Enhance and connect existing and future bikeways and pedestrian walkways in the Kern Region including disadvantaged communities ¹ .	Consistent. The Project site is not located within an area that includes designated SB 535 (2012) DACs (California Office of Environmental Health Hazard Assessment 2022). The Project site is located within a rural area of the unincorporated area of Kern County and does not include existing or planned bikeways and/or pedestrian walkways with which the proposed Project could interfere.
5—Encourage ... Kern COG member jurisdictions to update and implement their adopted local bicycle plans and to incorporate bicycle facilities into local transportation projects.	

15.3—Maintain and enhance existing roadway infrastructure and vehicles with emerging technology to provide for more efficient use and reduce emissions, including electrification and clean fuel technology.	Consistent. Prior to constructing driveways that afford access from public roadways to the Project site, the Project proponent would be required to obtain an Encroachment Permit, thereby confirming that the driveway access points do not interfere with any roadway infrastructure that may be planned for the public roadways for the purpose of achieving the objectives of this Policy/Action 15.3. Further, the proposed Project would generate renewable solar energy from the proposed solar rooftop and solar carport elements that may be made available to operations and maintenance staff.
27.8—Encourage cities and the county to provide parking requirements (and parking provisions) compatible with compact, pedestrian, and transit-supportive design and development. Requirements should account for mixed uses, transit access, and the linking of trips that reduce reliance on automobiles and total parking demand.	Consistent. As described above, the majority of proposed Project-related traffic would occur during the construction and decommissioning phases of the proposed Project. Given that these trips would be temporary, the proposed Project does not include the construction of permanent parking areas to accommodate the vehicles associated with these construction related trips. Further, the proposed Project is estimated to involve 30-60 full-time employees during operation and includes parking areas that are sized to accommodate the number and types of vehicles that employees are likely to use to access the Project site. Public transit bus services provided by Kern Regional Transit are located adjacent to the Project Site.

Policy/Action	Project Consistency
28—Encourage land use planning by Kern COG local Government member agencies that recognizes Kern's large area, dispersed centers and unique geographic features of the region.	Consistent. The Project site is located in a rural area that involves industrial zoned properties of sufficient size to accommodate Project. Given electrical, water, and fiber optic infrastructure to accommodate the proposed Project, there are limited alternative locations in an urban area that provide multimodal forms of transportation.

32—Achieve national and state air quality standards for healthy air by the mandated deadlines for all communities and especially disadvantaged communities.	Consistent. As described in Section 4.3, Air Quality, construction activities of the proposed Project have the potential to exceed standards for NOx and particulate matter (PM10), thereby resulting in potentially significant impacts. However, with the implementation of the recommended mitigation measures the proposed Project would not exceed the applicable standards and impacts would be less than significant. Moreover, the Project site is not located within an area that includes designated SB 535 (2012) DACs (California Office of Environmental Health Hazard Assessment 2022).
32.5—During the project level environmental process perform local hot spot analysis of air pollution in accordance with the proscribed federal process to identify which communities may be impacted by proposed transportation projects.	Consistent. As stated above, the Project site is not located within an area with designated DACs. Although the proposed Project does not involve the development of a new transportation project, the proposed Project involves changes to the KCGP Circulation Element and the introduction of proposed Project-related traffic to the existing roadway network. As described in Section 4.3, Air Quality, the proposed Project was not subject to a local hot spot analysis which revealed that the proposed Project would not result in the creation of a local hot spot at an intersection located within the regional roadway network, at either a Project-specific or cumulative level. As discussed in this section, the Project's traffic and VMT impacts are below the county thresholds of significance.
33.1—Avoid, minimize, and/or mitigate disproportionately high and adverse human health or environmental effects, including social and economic impacts, on traditionally disadvantaged communities, especially racial minority and low-income communities.	

Note: State legislation gives CalEPA the responsibility for designating disadvantaged communities in order to improve the public health, quality of life, and economic opportunity in California's most historically disinvested communities. CalEPA determines these designations based on various criteria including pollution burden and socioeconomic factors that are collectively used to calculate overall scores by census tract generated by CalEnviroScreen 4.0.

Construction

During construction, the Project would generate ~267 average daily trips, including ~40 AM peak-hour trips and ~40 PM peak-hour trips. This level of trip generation does not exceed the Kern County 50-trip peak-hour threshold for formal level of service analysis.

Construction is anticipated to begin in 2027 and will require approximately 48 months to complete (approximately three years). Depending on the construction schedule, the daily workforce will peak at 600 construction personnel. On average, there will be 150-200 construction personnel on site daily, with vehicle trips arriving and departing throughout the workday. It is anticipated that construction personnel will carpool to and from the project site, so a carpool factor of 1.5 was applied to the average daily traffic. It is also anticipated that approximately 30% of the average daily vehicle trips will occur during the AM and PM peak hours. **Table 4.11-13** shows the calculations for the construction traffic based on the above

information and assumptions.

Table 4.11-13 (Restated from Table 1 of Trip Generation Analysis, Appendix H.1)

Traffic Type	Variable (Personnel)	ADT*	Construction Phase		Operational Phase	
			In	Out	In	Out
			Trips	Trips	Trips	Trips
Construction Personnel	200		25%	5%	5%	25%
			33	7	7	33

*Carpool factor of 1.5 applied.

As shown in the above table, the construction phase is anticipated to generate 267 daily trips, 40 AM peak hour trips and 40 PM peak hour trips. Per the Kern County Division Nine: Standards for Traffic Engineering, the threshold for requiring level of service analysis is 50 trips in the peak hour. The construction phase of the project does not exceed the peak hour threshold of significance established by Kern County; therefore, no level of service analysis is required.

Construction of the primary access driveway connection from SR-178 would require a Caltrans encroachment permit and temporary traffic control measures. Installation of the proposed secondary emergency access gate on Brown Road would require coordination with Kern County Public Works.

Kern Regional Transit bus service along the SR-178 corridor, with a stop adjacent to the Project access driveway, would remain available to construction workers and is an existing transit facility the Project is situated to utilize.

Operation

During operation, the Project would generate ~241 average daily trips, including ~23 AM peak-hour trips and ~14 PM peak-hour trips. This level of trip generation does not exceed the Kern County 50-trip peak-hour threshold. Trip generation volumes for the proposed land use for the operational phase were calculated using the Institute of Transportation Engineers (ITE) Trip Generation, 12th Edition. The trip generation is based on the ITE Code 160 (Data Center). The results are shown in **Table 4.11-14** below.

Table 4.11-14 (Restated from Table 2 of Trip Generation Analysis, Appendix H.1)

ITE Code	Development Type	Variable	ADT RATE	ADT		In % Split/ Trips	Out % Split/ Trips		In % Split/ Trips	Out % Split/ Trips
160	Data Center	270.218 1000 sq ft GFA	eq ¹	241		71% 1 7	29% 6	0.05	19% 3	81% 1 1

¹Equation (eq) represents the ITE 12th Edition fitted curve equation.

As shown in the above table, the proposed project is anticipated to generate 241 daily trips, 23 AM peak hour trips, and 14 PM peak hour trips. The operational phase of the project does not meet the 50-trip peak hour threshold required for further analysis, as established by Kern County; therefore, the level of service is anticipated to remain the same.

Traffic Analysis

The published daily capacity of a two-lane roadway in Kern County, such as State Route 178 within the study scope, is approximately 10,000 vehicles per day. Based on the most recent traffic volume data provided by the Caltrans Traffic Census Program, the average daily traffic volume for the segment of the 178 within the project scope is approximately 3,300 vehicles per day. Kern County uses a Volume-to-Capacity (V/C) ratio to determine a roadway's level of service. A (V/C) > 0.80 is typically considered below level of service C and may require mitigation. In the case of the segment of State Route 178 within the study scope, the volume-to-capacity ratio is $(3,300/15,000) = 0.22$, which is less than 0.80, therefore the roadway segment is currently operating at an acceptable level of service and will continue to do so with the addition of project traffic.

Project Access

The Project would be accessible from the existing roadway system and would not require a fundamental change in the established circulation framework.

No permanent off-site roadway realignment or intersection reconstruction has been identified. Temporary access work, frontage improvements, driveway improvements, or encroachment work required during final design would be subject to agency coordination and applicable traffic control requirements in coordination with Caltrans District 9 and Kern County Public Works.

Under CEQA, lead agencies have the authority to establish their own VMT significance thresholds and analysis methodologies. At the time of this letter, Kern County has not yet adopted VMT guidelines. Therefore, the VMT analysis was completed using the guidelines and thresholds identified in the California Governor's Office of Research and Planning Technical Advisory (OPR TA), dated December 2018.

The VMT Guidelines contain criteria for determining whether a land use project may be screened from a detailed VMT analysis. These “screening” criteria relate to project size, location, and accessibility to transit. The project does not meet any of the screening criteria. Therefore, a detailed VMT analysis was conducted for the mixed-use project.

As defined in the OPR TA, the project can be evaluated using the VMT per capita metric. Per the OPR TA recommendation, data center land uses less than 15% below the existing regional VMT per capita will indicate a significant VMT impact.

VMT Calculation Methodology

Regional VMT

The Kern Council of Governments (KernCOG) provided regional Traffic Analysis Zone (TAZ) information detailing vehicle types, trip types and respective trip volumes for the region of Kern County where the project is located. The analysis also considers the land uses, population draws, and types of activities within the analysis zone. Based on the KernCOG model, the regional average VMT by land use was found to be 36.85 (see analysis details attached in Appendix H.1). The OPR TA threshold of significance is a VMT of 31.32.

Project VMT

The average VMT of the project was estimated by distributing and assigning project traffic to the street network and calculating the average miles traveled per project trip. The VMT calculation summary and results are attached to this letter. The output gives a detailed summary of each trip assigned to the street network. The average VMT for the project was determined to be 27.13, which considers trips to areas in Los Angeles to the south, as well as Bakersfield and other Central Valley locations to the west. The below **Table 4.11-15** shows the regional VMT, OPR threshold of significance for the regional VMT, and the project VMT.

Table 4.11-15 Regional & Project VMT Comparison (Restated from Table 3 of Trip Generation Analysis, Appendix H.1)

Regional VMT	OPRThreshold* for Regional VMT	Project VMT	%BelowRegional VMT
36.85	31.32	27.13	30.37

**15% below the regional VMT.*

VMT Conclusion

As shown in the above table, the project VMT (27.13) is 30.37% below the regional VMT (36.85) and does not exceed the OPR TA regional threshold of significance of 31.32. Therefore, the project is expected to have a less than significant transportation impact and no further VMT

analysis is required.

As discussed in Section 4.16, *Transportation*, the Project's impacts to transportation and traffic in the Project area with the implementation of stated mitigation measures have been determined to be *less than significant*.

Tribal Resources (Section 4.17)

Fieldwork for the Phase I survey was conducted on January 8, 2026, using pedestrian transects spaced at approximately 15 meters. The Phase I report states that six of the seven previously recorded resources that intersect the Project area were relocated and updated, and that the remaining resource was determined to be outside the Project area and was not investigated further.

The report concludes that the identified resources within the Project area are historic in age, lack integrity, and are recommended not eligible for listing in the California Register of Historical Resources (CRHR). No additional archaeological sites or historic properties were identified within the Project area during the field survey. The Historical Architectural Report similarly concludes that the surveyed built-environment resources evaluated for the Project are not recommended eligible under the CRHR criteria. A search of the Native American Heritage Commission (NAHC) Sacred Lands Files was requested on December 22, 2025, and on January 23, 2026; the NAHC responded on March 16, 2026 with a negative Sacred Lands File result for Tribal Cultural Resources and sacred sites.

As discussed in Section 4.17, *Tribal Cultural Resources*, the Project's impacts to tribal cultural resources with the implementation of stated mitigation measures have been determined to be less than significant.

Public Services (Section 4.18)

Water Facilities. The Inyokern CSD has contracted and/or developed water supplies sufficient to serve the Project's Projected demands within the District's planning horizon, subject to the conditions and conservation requirements stated herein. A water main extension is anticipated to provide adequate fire flow and domestic pressure to the Project site. All extensions shall be designed and constructed at Applicant's sole cost per the Inyokern CSD standards. If the District requests oversizing beyond Project need, the parties shall execute a reimbursement agreement as described in Section 5.6 of the District's executed Will-Serve Letter (April 2, 2026).

Wastewater treatment. The Inyokern CSD preliminarily found existing trunk sewer facilities are to have sufficient capacity; however, upsizing of the lateral connection may be required based on final hydraulic modeling.

Stormwater drainage. The Inyokern CSD preliminarily found the District's waste water treatment facility has available capacity to accept the Projects Projected flows as of the date of the CSD will-serve letter. Capacity reservations are subject to current Connection Fee agreements as further described in Section 6 of the CSD will-serve letter.

Electric power. As discussed in the *Environmental Setting* element of this section, electric service for the Project would be provided by Southern California Edison (SCE) through a customer-dedicated substation interconnecting with SCE's existing Inyokern 115 kV Substation via two (2) 115 kV overhead subtransmission lines (Route 1: ~8,000 LF; Route 2: ~4,000 LF). The Project would be served through two 60/80/100 MVA step-down transformers (115 kV to 34.6 kV), providing 2N utility redundancy.

On March 30, 2026, SCE issued a Method of Service Study ("MOS Study") to analyze the SCE system impacts, technical requirements, estimated cost, and schedule for the installation of a new 115 kV Customer dedicated substation. The SCE Transmission Planning group evaluated the Customer load interconnection request for 99 MW. The potential plan of service was analyzed: Inyokern 115 kV POI; One (1) 115 kV Customer Dedicated Substation; and Two (2) 115 kV Radial Transmission Lines.

The Applicant will own and operate its own transformer and feeders and will be responsible to complete necessary environmental licensing.

Based on the power flow analysis, no adverse system impacts or required system upgrades on the Inyokern 115 kV transmission systems were identified for either configuration under contingency (P1-P7) conditions. The analysis included Transmission Planning Process approved upgrades modeled in the base case for all study years. Any future modifications to system topology, Project configuration, or customer load characteristics may necessitate a restudy to confirm continued system adequacy. Although flicker analysis was not performed due to insufficient data, the customer must ensure compliance with SCE's Voltage Fluctuation Criteria as described in Section D of the MOS Study.

Final interconnection design and service requirements would be confirmed through SCE's Method of Service process and applicable utility review procedures. Electrical interconnection documentation, including the Project one-line, point of interconnection location, and substation one-line, is provided in the Appendix L series.

Natural Gas. Natural gas service feasibility has been evaluated at a screening level by PG&E which indicated that the Project can be served from a nearby transmission main and that the requested load is feasible. Although natural gas service is available and was evaluated, it was not selected as the primary redundancy approach for the Project. Any limited natural gas service needs would be finalized during utility engineering and provider review; noting, however, that due to earthquake risk the Applicant does not intend to rely on natural gas for IT-critical systems.

Telecommunications. Fiber service will be provided by Onward via a redundant, carrier-diverse network with independent north and south routes and direct access to the Digital 395 fiber. The system includes 432 strands in three underground conduits, scalable from 1–100 Gbps, with ~6 ms RTT to Los Angeles. The fiber tie-in location is onsite, providing direct integration with the facility's network architecture. Based on currently available information, telecommunications service would be provided through an on-site connection, and the current engineering documents does not indicate the need for major offsite telecommunications expansion beyond normal connection facilities.

Construction. During construction, the Project would require installation of onsite utility infrastructure including water and wastewater connections to CSD infrastructure, onsite distribution, stormwater retention facilities, electrical interconnection facilities, and telecommunications conduit. The CSD's will-serve letter indicates that a water main extension may be necessary, and that sewer lateral upsizing may be required depending on final hydraulic modeling. Construction of these improvements could result in temporary physical disturbances associated with trenching, grading, pipeline installation, and related activity. However, these improvements are localized connection and service facilities that are part of Project development and do not require major new regional utility or service system expansion.

Wastewater produced during construction would be collected in portable toilet facilities and disposed of at an approved facility.

Operation

During operation, the Project would connect to existing utility systems through the localized extensions identified above. Electric service would be finalized through SCE's Method of Service process. Natural gas service would be finalized during PG&E engineering. Telecommunications service would be provided through an onsite connection to the proposed redundant network. Stormwater runoff would be managed onsite through a retention basin designed to meet Kern County requirements. Because the utility and service system improvements required to serve the Project would not, in themselves, result in significant environmental effects beyond those evaluated elsewhere in this Application, the operational impact would be less than significant.

The WSA (Appendix E.3) prepared for the Project evaluated the sufficiency of the Project water supply is analyzed on three bases: the physical availability of the Project Area aquifer, and wells drilled therein, to provide groundwater in the amounts required for Project construction and operation; the estimates (in the 2020 GSP and 2025 Periodic Evaluation) of normal water years, single-dry water years, and multiple dry water years, water supply and demand-related water availability; the availability of groundwater for the Project in compliance with SB 610. As presented in the WSA:

Based on the 2020 IWVGA GSP future water budget approximately 26,511 acre-feet per year are expected to be extracted in 2040 in respect to physical availability of groundwater at and near the Project site.

The maximum water demand for this Project is estimated at 49.10 acre-feet (16 MG)/year, or approximately 0.185% of the projected available yearly supply of 26,511 acre-feet. The Inyokern CSD has confirmed sufficient water allocation and infrastructure capacity to serve the Project. The Project's incremental contribution to the cumulative groundwater basin overdraft is analyzed under Impact 4.18-2 below and addressed in detail in Section 4.10.

Waste Water

Construction Phase: Construction activities would not generate significant wastewater flows requiring treatment by the CSD. Portable sanitation facilities would be used during construction. No impact to CSD wastewater treatment capacity is anticipated during construction.

Operation and Maintenance Phase: The CSD's will-serve letter identifies preliminary wastewater flow estimates (approximately 6,670 gpd ADWF) and states that available treatment capacity exists to serve the Project, subject to identified conditions. Final hydraulic modeling may determine that sewer lateral upsizing is necessary. Cooling tower blowdown would be subject to wastewater characterization and pretreatment review, including a determination as to whether a Significant Industrial User permit would be required. Because the wastewater provider has preliminarily determined that treatment capacity is available, and because any required conveyance, characterization, or pretreatment measures would be established through final engineering and utility permitting, the Project would not result in a determination that inadequate wastewater treatment capacity is available and thus the Project's impact on wastewater would be less than significant.

Solid Waste

A minimal amount of non-hazardous solid waste generated at the Project site would most likely be disposed of by a permitted hauler at the Ridgecrest Recycling and Sanitary Landfill (RSLF) located at 3301 Bowman Road in the City of Ridgecrest, approximately 5 miles southeast of the Project site. This Class III landfill accepts clean inerts (e.g., source separated asphalt, brick and concrete; C&D waste, including asphalt, brick, concrete, dirt, and metal); dead animals; electronic waste for recycling; greenwaste; ordinary household trash; tires; and treated wood waste (e.g., grape stakes, utility poles; foundation lumber); and used motor oil. The landfill does not accept hazardous waste, hot ashes, and liquids of any kind.

According to CalRecycle, as of the end of 2023, RDLF had approximately 102,300,000 cubic yards capacity remaining of a total of 117,400,000 cubic yard maximum capacity. The ceased operation date of the RDLF is January 1, 2080.

AB 341 requires Kern County to attain a waste diversion goals of 75 percent by 2020 through reduction, recycling, or composting. In addition, as part of compliance with CALGreen requirements, Kern County implements the following construction waste diversion requirements: Submittal of a Construction Waste Management Plan; Recycle and/or reuse a minimum 65 percent C&D waste; and Recycle or reuse 100 percent of tree stumps, rocks, and associated vegetation and soils resulting from land clearing.

Additionally, the California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires expanded or new development Projects to incorporate storage areas for recycling bins into the Project design. Implementation of Mitigation Measure MM 4.18-1 would ensure compliance with waste diversion and recycling requirements by requiring recycling during construction, operation, and decommissioning of the Project.

The proposed Project would be required to comply with all federal, State, and local statutes and regulations related to the handling and disposal of solid waste.

As discussed in Section 4.18, *Utilities and Service Systems*, the Project's impacts on utilities and service systems with the implementation of stated mitigation measures have been determined to be less than significant.

Environmental Justice (Section 4.19)

The Project is not located within a community identified by CalEnviroScreen 4.0 or SB 535 as a disadvantaged community. However, because portions of the Inyokern community may be sensitive to environmental stressors based on the health indicators discussed in Section 4.19.1, the Project has been evaluated to determine whether construction, operation, and maintenance would result in disproportionately high and adverse effects on environmental justice populations.

Based on the environmental justice setting, the technical-area pathways identified in this section, and the technical conclusions, controls, and implementation mechanisms reflected in the Project record, the Project would not result in disproportionately high and adverse direct, indirect, or cumulative effects on environmental justice populations. The technical studies submitted with this Application confirm that construction and operational impacts in all evaluated pathways would remain below applicable significance thresholds with required controls and mitigation incorporated into construction and operations. Impacts on disadvantaged communities and populations would not occur with construction or operation of the Project.

As discussed in Section 4.19, *Environmental Justice*, the Project's impacts to the state's environmental justice goals with the implementation of stated mitigation measures have been determined to be *less than significant*.

Wildfire (Section 4.20)

The applicable local emergency management framework for the Project area consists of the Kern County Emergency Operations Plan (EOP), which establishes the County's emergency management organization consistent with California's Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS), and the Kern County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), which was approved by FEMA on April 9, 2021, and is administered by the Kern County Fire Department Office of Emergency Services.

No Community Wildfire Protection Plan (CWPP) has been adopted for the Indian Wells Valley or Inyokern area. The Project is not expected to substantially impair emergency response or evacuation. Construction activities would be managed to maintain emergency access on surrounding roadways, including SR-178 and US-395, and site access and internal circulation would be designed to meet KCFD and CFC requirements for emergency vehicle access. The Project's internal circulation and access design would be coordinated with KCFD to confirm compatibility with emergency response operations under the EOP.

Based on the Project design and the Wildfire Assessment prepared for the Project, the Project would not influence the effectiveness of the EOP or MJHMP.

The Project Site is not located within an SRA or VHFHSZ and is mapped within an LRA non-VHFHSZ area. The wildfire hazard mapping prepared for the Project identifies the Site as flat desert floor with sparse desert scrub and a low wildfire risk. The Project Site is relatively flat, eliminating slope as a contributing factor to fire spread. Prevailing winds could influence the direction of a regional fire; however, limited vegetation on and around the Project site reduces the potential for a large, wind-driven wildfire originating at the Project Site.

Based on the Project location and setting, and the fire protection features described for the Project, the Project is not expected to exacerbate wildfire risk or contribute to the uncontrolled spread of wildfire. While regional wildfires could result in smoke exposure in the Project vicinity, this would be a region-wide condition and would not be exacerbated by the Project.

The Project would connect to utilities including electrical facilities, domestic water, and sanitary sewer (through annexation into the Inyokern Community Services District). Proposed mitigation measures include electrical infrastructure that would be designed and installed to meet applicable safety standards to minimize ignition risk. Based on the currently available Project materials, neither temporary construction-phase infrastructure nor permanent Project infrastructure is expected to exacerbate wildfire risk. Other than noted below, no additional mitigation would be required.

As discussed in Section 4.20, *Wildfire* as well as Section 4.9, *Hazards and Hazardous Materials*, the Project's impacts relating to wildfire risks with the implementation of stated mitigation measures have been determined to be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less than significant.

Discretionary review and approval by approval requirements

In addition to approval of Applicant's application under the CEC Small Power Plant Exemption (SPPE), the Project would require discretionary review and approval by Kern County and other agencies with jurisdiction over specific Project components or services. The following discretionary actions must be completed to convert Conditional findings to Consistent:

Conditional	Use	Permit
The Project Site is identified for industrial-oriented use in the current planning record and is surrounded by vacant land, utility facilities, transportation corridors, solar development, airport-related land, and limited highway commercial development. Although scattered residential uses occur west of Brown Road, the Sensitive Receptor Map (Appendix B, Section (g)(10)(B)) confirms that no sensitive receptors are located within 0.25 mile of the Project Site or linear facility corridor, and the nearest residential uses are approximately 500 feet west of the Project Site (see Table 4.11-1). The presence of nearby residences does not establish a land use conflict that would preclude industrial development on the Project Site, particularly where the applicable discretionary approvals and technical review processes would address design, operations, lighting, noise, traffic, air quality, hazards, and other environmental issues in the applicable resource sections of this Application.		

Specific Plan Amendment

The Project requests a Specific Plan Amendment to eliminate a 90 foot wide future road reservation of a secondary collector that was created by the Inyokern Specific Plan Circulation Element. The reservation to the north of the Navy land has already eliminated a portion of the reservation. The reservation needs to be eliminated on the project site and the parcel where the

proposed SCE substation will be constructed so no setbacks from that road reservation would be required.

Lot Line Adjustment No. 28-25 (and any other required additional consolidation)

The RB Inyokern Data Center (RBIDC) Project currently encompasses approximately 50 acres across four Kern County Assessor's Parcels — APNs 084-010-43, 084-010-44, 084-010-45, and 084-010-48 — all of which are held in fee by R&L Capital, Inc. (acquired April 2018). APNs 084-010-43, -44, and -45 are located north of SR-178 and contain the main data center campus, including the integrated ~238,000 square foot data center building, two generator yards, cooling infrastructure, stormwater retention basin, and on-site circulation and parking. APN 084-010-48 is located south of SR-178 and hosts the proposed 200-foot by 200-foot SCE Point of Interconnection (POI) associated with the customer-dedicated substation. Because the main campus parcels and APN 084-010-48 are physically separated by the SR-178 state highway right-of-way, APN 084-010-48 will remain a separate legal parcel and is not proposed for consolidation with the main campus.

To place the Project on a configuration suitable for construction and long-term operation, the Applicant has submitted Lot Line Adjustment No. 28-25 to Kern County Planning and Natural Resources as part of the concurrent entitlement package (filed alongside the Conditional Use Permit and Specific Plan Amendment). Lot Line Adjustment No. 28-25 reconfigures the underlying parcels into adjusted Lots A, B, and C, aligning property lines with the proposed development footprint and separating the data center campus (north of SR-178) from the POI parcel (south of SR-178). To the extent any additional parcel consolidation is required beyond the LLA to place the main data center campus on a single legal parcel — consistent with CEC Appendix B, Section (g)(3)(C) and the Small Power Plant Exemption submittal requirements — the Applicant is committed to completing that consolidation prior to the commencement of construction. Any such follow-on consolidation applies only to the parcels north of SR-178 and does not affect APN 084-010-48, which will remain separate to accommodate the POI and associated utility infrastructure.

Electrical service to the data center campus from the POI on APN 084-010-48 will be provided through a dedicated 30-foot-wide subtransmission line utility easement. The easement corridor originates at the POI on APN 084-010-48, runs west along W. Graaf Avenue, and then extends north across the SR-178 right-of-way to the southeastern corner of the data center campus, where it connects to the customer-dedicated substation and onward to the data center building. The utility easement will be recorded in connection with the LLA and associated entitlement process and will remain in place for the operational life of the Project, providing a permanent legal right of access and conveyance across APN 084-010-48 and the intervening right-of-way to serve the main campus.

Neither the LLA nor any follow-on parcel consolidation is required prior to the California Energy Commission's decision on the SPPE Application or Kern County's action on the CUP; both are pre-construction conditions. The Applicant will coordinate directly with Kern County Planning and the County Surveyor to finalize the LLA, record the utility easement, and record the resulting

parcel map, and will provide documentation of the final parcel configuration and easement to the County and the CEC prior to issuance of grading or building permits.

ALUC Consistency Determination - Inyokern Airport (KIYK)

Kern County modified the ALUC in 1994 and currently uses an approved alternative process via GP/ZO — compatibility determination is incorporated into the Kern County CUP review rather than a separate ALUC process.

The Project Site is located approximately 0.4 mile southeast of Inyokern Airport (KIYK) and is subject to the adopted alternative process of the Kern County Airport Land Use Compatibility Plan (ALUCP). The project site is located in Zone C of the ALUCP, the outer boundary of the Common Traffic Pattern Zone. The Project use (industrial data center, M-2 PD zoning) is preliminarily consistent with the industrial compatibility standards applicable to Zone C, and the Project does not require a variance from County height limits. The project meets the use compatibility, density, and open space requirements of the plan. Required consultation will occur with the military installations and R-2508 Airspace Complex and imposition of conditions for Frequency Deconfliction coordination, dust control, and Dark Sky ordinance implementation and management will ensure compatibility with the requirements of the ALUCP military aviation policies.

With respect to Inyokern Airport (KIYK), the Project Site is located in ALUCP Zone C and all proposed structures are less than 35 feet above finished grade, conforming to applicable height and compatibility standards without the need for a variance. As shown in Table 4.11-2, the Thermal Plume Analysis (Appendix E.4) confirms that all thermal plumes from project emission sources dissipate below the CEC significance threshold of 5.3 m/s at heights no greater than approximately 202 feet aboveground under worst-case calm-wind conditions, well below any aircraft operating altitude over the Project Site.

Annexation into Inyokern Community Services District (water/wastewater):

The Project Site is currently located within the Sphere of Influence (SOI) of the Inyokern Community Services District (CSD) but outside the District's jurisdictional boundary. Domestic water and sanitary sewer service for the Project will be provided by the Inyokern CSD following annexation through the Kern County Local Agency Formation Commission (LAFCo) process. Annexation is required by Inyokern Specific Plan Industrial Element Policy 4, which mandates that new industrial development located within the Specific Plan boundary but outside the CSD service area annex into the District as a condition of service, unless the development otherwise meets the requirements of the Lahontan Regional Water Quality Control Board and the Kern County Environmental Health Services Department. Annexation is identified as a required discretionary approval in Table 1-3 of the SPPE Application and in Section 4.11 (*Land Use and Planning*).

The Inyokern CSD issued an executed Will-Serve Letter on April 2, 2026 confirming that the District has sufficient water and sewer capacity to serve the Project's estimated construction and operational demands. The governing service envelope established by the Will-Serve Letter

includes Average Day Demand (ADD) of approximately 40,430 gpd, Maximum Day Demand (MDD) of approximately 60,645 gpd, Peak Hour Demand (PHD) of approximately 101,075 gpd, fire flow of 3,000 gpm at 20 psi residual for a minimum of four hours, and cooling tower makeup water of approximately 28,500 gpd. Service is conditioned on execution of Water Service and Sewer Service Agreements prior to construction, submission of a Wastewater Characterization Report no later than 30 days prior to construction commencement (addressing cooling tower blowdown chemistry and any BESS fluoride/lithium/PFAS contributions), submission of a Water Efficiency Plan prior to building permit issuance, and a water audit within 12 months of initial occupancy. Required water conservation measures include minimum 5.0 cycles of concentration on cooling towers, conductivity controllers, side-stream filtration, and drift eliminators. Redundancy will be provided by two on-site backup wells and approximately 388,000 gallons of on-site dual-tank buffer storage (two 142,000-gallon and two 52,000-gallon tanks) consistent with Tier III concurrent maintainability / Tier IV functional redundancy design standards.

The Applicant acknowledges that the State Water Resources Control Board (SWRCB) issued a June 6, 2025 notification under California Health and Safety Code Section 116682(b) directing the Inyokern CSD to negotiate voluntary consolidation with the Indian Wells Valley Water District (IWVWD). As of the SPPE Application filing, voluntary consolidation negotiations remain ongoing and unresolved, and the SWRCB retains authority to order mandatory consolidation. In the event a successor or consolidated provider is established, IWVWD would likely become the successor water provider for the Project area; however, the April 2, 2026 Inyokern CSD executed Will-Serve Letter remains in effect as the current basis for Project water and sewer service planning, and the Project's will-serve documentation will be updated to reflect any change in provider prior to final Project approvals.

As noted, the IWVGB is currently in overdraft with a current loss of storage of approximately 25,000 AFY and the amount of outflows exceeds the natural inflows into this basin by an approximate factor of 400 percent (IWVGA, 2020). The Inyokern CSD has confirmed, through an executed Will Serve Letter dated April 2, 2026, that the District has sufficient water supply capacity to serve the Project's estimated operational demand within its existing allocations under the IWVGA Groundwater Sustainability Plan (GSP). The GSP, adopted January 16, 2020 by the IWVGA Board, establishes annual groundwater pumping allocations for all pumpers in the Basin and requires augmentation fees when allocations are exceeded; these fees fund basin improvement projects designed to bring the Basin toward sustainable yield. The Project's total annual water demand of approximately 36.83 to 49.10 AFY falls within the CSD's confirmed service capacity and represents approximately 0.185% of the projected 2040 basin extraction of 26,511 AFY (per the Water Supply Assessment).

The IWVGB is designated as critically overdrafted under SGMA, and the Indian Wells Valley Groundwater Authority's Groundwater Sustainability Plan establishes annual pumping allocations and an augmentation fee program designed to manage basin-wide extraction toward sustainable yield by 2040. The Project proponent is required under Mitigation Measure MM 4.10-2 to comply with all applicable GSP restrictions, including annual pumping allocations and augmentation fees. Mitigation Measure MM 4.10-3 requires verification of the water source prior to issuance of building and/or grading permits. With implementation of MM 4.10-2 and MM 4.10-3, the Project's water demand

would operate within the GSP's adaptive management framework and would not impede the Basin's path to sustainable yield.

According to the Water Supply Assessment (WSA) (Appendix E.3): This WSA has provided the data and analysis needed to verify that a sufficient Project water supply is physically available (Section 3.1) and that the Project water supply is in accord with SB 610's normal year/dry-year/multiple-dry year requirements, sufficient (Section 3.2). The maximum water demand for this Project is estimated at 49.10 acre-feet/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. This conclusion is based on the fact that maximum water demand for this Project is estimated at 49.10 acre-feet (16 MG)/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. Compliance with the DWR Guidelines for the Project is included in Appendix C [of the WSA]. It is recommended that the County of Kern conclude that the proposed water supplies for the Project are sufficient to meet the projected Project water demand.

The Project's incremental contribution to water supply limitations would therefore be less than significant with mitigation.

Required grading activities for the proposed Project would alter existing on-site drainage patterns and flow paths and could alter the way that stormwater flows on-site during major events. These changes could concentrate flows and thus, result in increased erosion of existing soils on-site and subsequent sedimentation downstream. Further, the impervious surfaces introduced to the Site due to development of the Project would generate additional stormwater runoff on Site, which could exacerbate potential erosion and sedimentation on Site or downstream.

As described in Section 4.10, *Hydrology and Water Quality*, the proposed Project would implement a SWPPP per Mitigation Measure MM 4.7-3 that would require preservation of existing vegetation and topography to the maximum extent feasible, as well as include erosion and sediment control BMPs designed to prevent erosion and sedimentation from occurring during Project construction. Compliance with the Kern County Grading Code requires erosion prevention measures be implemented.

FEMA Letter of Map Revision (LOMR)

The Project Site is located within a FEMA-mapped Special Flood Hazard Area (SFHA), Zone A, as shown on FEMA Flood Insurance Rate Map (FIRM) Panel 06029C1018E, effective September 26, 2008. Zone A designates areas subject to inundation by the 1-percent annual chance flood (100-year flood) for which no detailed base flood elevation (BFE) has been established on the FIRM. This flood hazard designation is reflected in the Kern County General Plan as a Flood Hazard combining designation (Land Use Element map code 7.2/2.5 — Service Industrial / Flood Hazard) and triggers compliance obligations under the Kern County Floodplain Management Ordinance (Kern County Zoning Ordinance, Chapter 19.70) and applicable FEMA National Flood Insurance Program (NFIP) requirements.

The Project’s Hydrology Study (Appendix E.1 of the SPPE Application) evaluated site flood risk using NOAA Atlas 14 Volume 6 rainfall frequency data, FEMA mapping, topographic and soils data, and hydraulic modeling consistent with the Kern County Hydrology Manual. The analysis confirms that floodwater from Little Dixie Wash (located approximately 8,000 feet south of the site) does not reach the Project area. Maximum modeled on-site depths from the 100-year, 24-hour rainfall design event are generally less than 1.0 foot, with a localized depression in the northwest corner of the site representing the only area of deeper accumulation (no development proposed in that area). A conservative base flood elevation criterion of 1.0 foot above existing or finished grade has been adopted for Project design pending final engineering, and an on-site stormwater retention basin sized at approximately 2.2 acre-feet (based on the Kern County 10-year, 5-day design storm criterion) is incorporated into the site plan to comply with applicable drainage standards, FEMA Zone A requirements, and Kern County Flood Control and Water Conservation District criteria.

Prior to the commencement of construction, the Applicant will complete a final hydraulic model, final drainage plan, and final grading design demonstrating compliance with the Kern County Floodplain Management Ordinance (including maintenance of flood conveyance and limits on increases in water surface elevation). Based on these final engineering products, the Applicant will submit a Letter of Map Revision (LOMR) application to FEMA to formally revise the flood hazard designation for the Project’s graded footprint. The LOMR is limited in scope to the Project Site only — it does not alter flood hazard designations on surrounding parcels, does not constitute a regional drainage infrastructure improvement, and is not expected to enable additional development on adjacent properties.

Issuance of the LOMR is a pre-construction requirement and will be coordinated with Kern County Floodplain Administration and FEMA consistent with FEMA’s Standards for Flood Risk Analysis and Mapping (November 2016).

Table 4.11-16: CEC SPPE Appendix B Compliance Cross-Reference — Land Use and Planning

Ref.	Appendix B Requirement	Section / Table	Status
(g)(3)(A) — Existing Land Uses, Designations, and Zoning			
(g)(3)(A)(i)	Identification of residential, commercial, industrial, recreational, scenic, agricultural, natural resource, educational, religious, cultural, historic, and other unique land use areas within one mile of site and one-quarter mile of linear facilities.	§§4.11.1.2, 4.11.1.3; Table 4.11-1	✓ Addressed

(g)(3)(A)(ii)	Discussion of any recent or proposed zone changes and/or general plan amendments noticed by an elected or appointed board, commission, or similar entity.	§4.11.5.1	✓ Addressed
(g)(3)(A)(iii)	Identification of all discretionary reviews by public agencies initiated or completed within 18 months prior to filing for changes identified in (g)(3)(A)(ii).	§4.11.5.1	✓ Addressed
(g)(3)(A)(iv)	Legible maps of areas potentially affected by the project showing existing land uses, jurisdictional boundaries, general plan designations, specific plan designations, and zoning.	§4.11.1.4; Figure T-4; Appendix A.1	✓ Addressed
(g)(3)(B) — Compatibility with Present and Expected Land Uses			
(g)(3)(B)	Discussion of compatibility with present and expected land uses and conformity with long-range land use plans and policies. Identifies land use decisions needed by another public agency or as part of the Commission's decision (e.g., general plan amendments, zoning changes, lot line adjustments, parcel mergers, ALUC determinations).	§§4.11.3, 4.11.5.4; Table 4.11-4	✓ Addressed
(g)(3)(C) — Parcel Legal Status			
(g)(3)(C)	Discussion of the legal status of the parcel(s) on which the project is proposed; method and timetable for merging or combining parcels so the project (excluding linears and staging) is located on a single legal parcel prior to construction.	§4.11.5.2	✓ Addressed
(g)(3)(D) — Agricultural Land Use			

(g)(3)(D)(i)	FMMP Important Farmland map classifications, crop types, irrigation systems, and special cultivation practices for all project-affected areas.	§4.11.1.7; Table 4.11-3; Figure FMMP-1 (App. D.3)	✓ Addressed
(g)(3)(D)(ii)	Whether agricultural land affected by the project was historically classified Farmland (Prime, Statewide Importance, or Unique) per PRC §21060.1.	§4.11.1.7; Table 4.11-3; §4.11.5.3	✓ Addressed
(g)(3)(D)(iii)	Direct, indirect, and cumulative effects on agricultural land uses; Williamson Act contract status and discussion of expiration or cancellation if applicable.	§§4.11.1.7, 4.11.3 (Impact 4.11-4), 4.11.5.3, 4.11.6; Table 4.11-3; Figure AF-2 (App. D.3)	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(3). All criteria addressed in this chapter; full technical disclosure in the Agriculture and Forestry Resources Assessment (Appendix D.3) and Thermal Plume Analysis (Appendix E.4) (filed as supporting exhibits to this Application).

4.11.4 Mitigation Measures

Based on the impact analysis presented in Section 4.11.3, all land use and planning impacts associated with the Project would be less than significant. Other than the mitigation measures stated in the resource-specific sections that bear on land use compatibility (including Section 4.4 Biological Resources, Section 4.9 Hazards and Hazardous Materials, Section 4.13 Noise, Section 4.16 Transportation, and Section 4.10 Hydrology and Water Quality), no additional measures are required. The Project would comply with all applicable land use plans, policies, and regulations through the required discretionary approval processes, including the Conditional Use Permit, Specific Plan Amendment, Lot Line Adjustment No. 28-25, ALUC consistency determination, and annexation to the Inyokern Community Services District.

4.11.5 CEC SPPE Appendix B — Additional Land Use and Planning Disclosure Requirements

This section provides the additional land use and planning disclosure information required by CEC SPPE Appendix B, Section (g)(3) (20 CCR Division 2, Chapter 5, Appendix B, effective July 20, 2023). This information supplements the CEQA impact analysis provided in Sections 4.11.1 through 4.11.4 above. Appendix B, Section (g)(3), requires the Applicant to provide: (A) a discussion of existing land uses, land use designations, and zoning at and around the site, including recent zone changes and discretionary reviews; (B) a discussion of compatibility with present and expected land uses and long-range plans; (C) a discussion of the legal status of the project parcel(s); and (D) a description of agricultural land uses within project-affected areas, including FMMP classifications, historical farmland status, and direct, indirect, and cumulative effects on agricultural land. Each of these requirements is addressed below.

Recent or Proposed Zone Changes and Discretionary Reviews — Appendix B (g)(3)(A)(ii) and (iii)

Pursuant to Appendix B, Section (g)(3)(A)(ii) and (iii), a records search of Kern County Planning and Natural Resources Department records for off-site zone changes, general plan amendments, specific plan amendments, and other qualifying discretionary land use actions noticed by an elected or appointed board or commission within one mile of the project site during the 18-month period prior to filing (September 17, 2024 through March 17, 2026) will be completed and provided to the CEC as a supplemental filing. This records search will be conducted as part of the Kern County Conditional Use Permit and Specific Plan Amendment review process, through which the County's land use and planning records for the project vicinity will be formally documented. Upon completion of that County review, the results of the records search will be submitted to the CEC as a supplement to this section. Based on publicly available materials and information known to the Applicant as of the filing date, no off-site zone changes, general plan amendments, or other qualifying discretionary actions within the one-mile study area have been identified during the applicable 18-month period. If any qualifying actions are identified through the County review process, the land use compatibility analysis in Section 4.11.3 will be reviewed and updated as appropriate.

Parcel Legal Status and Consolidation — Appendix B (g)(3)(C)

The Project area comprises APNs 084-010-43, 084-010-44, 084-010-45 (portion), and 084-010-48 (portion), encompassing approximately 83 total acres inclusive of the main facility block (~63 acres) and the subtransmission line corridor (~20 acres), as confirmed by the Williamson Act Boundary Map (Figure AF-2, Appendix D.3). Lot Line Adjustment No. 28-25 has been identified as part of the Project entitlement package and establishes adjusted Lots A, B, and C. If additional parcel consolidation is required to place the main Project site on a single legal parcel, such action will be completed prior to the commencement of construction in accordance with Appendix B, Section (g)(3)(C).

The Notice Area Map and Parcel Owner Notice List (Appendix B, Section (a)(1)(E)) identify 42 private parcels within the required notice area: 6 contiguous parcels (requiring owner and occupant notice), 16 parcels within 1,000 feet of the project boundary, 1 parcel within 500 feet of the subtransmission linear facility, and 19 additional parcels identified through historical record review included conservatively. All four project APNs are owned by R & L Capital Inc. A total of 161 adjacent BLM/State/Federal parcels with no private assessor record are present within the 1,000-foot buffer; no private owner notice is required for those parcels.

The Project-specific discretionary actions identified in the available record include a Conditional Use Permit, a Specific Plan Amendment (to remove the planned secondary collector/90-foot right-of-way reservation), Lot Line Adjustment No. 28-25, annexation into the Inyokern Community Services District, a formal ALUC consistency determination for KIYK, and the SPPE. See Figure 4.11-3 below.

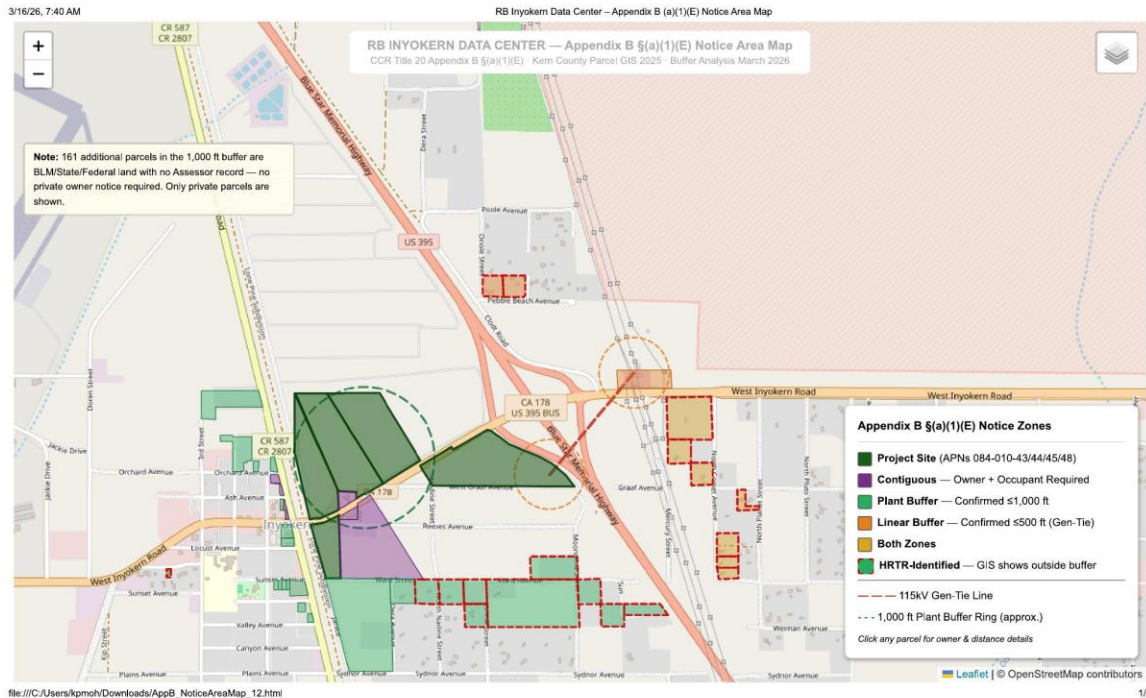


Figure 4.11-3: Appendix B §(a)(1)(E) Notice Area Map — RB Inyokern Data Center (Source: Kern County Parcel GIS 2025; Buffer Analysis March 2026 — Appendix B §(a)(1)(E))

Agricultural Land Use — Appendix B (g)(3)(D)

As documented in Section 4.11.1.7 and Table 4.11-3, the Project Site is mapped as Nonagricultural or Natural Vegetation per the DOC FMMP 2022 Biennial Update (Appendix D.3, Figure FMMP-1). No Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance exists on or directly adjacent to the project parcels, as required by Appendix B (g)(3)(D)(i) and (ii) and Public Resources Code Section 21060.1. The Project Site does not support active agricultural operations; there are no crop types, irrigation systems, or special cultivation practices to describe. The Project Site is not subject to a Williamson Act contract, is not timberland, and is not within a Timberland Production Zone (Figures AF-2, AF-3, AF-4, Appendix D.3).

As required by Appendix B (g)(3)(D)(iii), the direct, indirect, and cumulative effects of the Project on agricultural land uses are evaluated in Section 4.11.3 (Impact 4.11-4) and Section 4.11.6. Because the Project Site contains no important farmland, no active agricultural use, and no Williamson Act contract land, the Project would not result in direct or indirect conversion of agricultural land or any measurable cumulative effect on agricultural resources in the project vicinity. No Agricultural Land Conservation Act contract exists or is proposed for cancellation in connection with this Project.

Compatibility with Present and Expected Land Uses and Long-Range Plans — Appendix B (g)(3)(B)

The Project Site is located in an area characterized by service-industrial planning designations, utility infrastructure, highway access, airport influence, commercial uses, solar development, and open land. The Project would not physically divide an established community and would not result in a fundamental incompatibility with the existing or planned land use pattern in the Project vicinity. No scenic corridors, religious institutions, cultural resource sites, historic areas, or sensitive receptors within 0.25 mile of the Project Site or linear facility corridor have been identified (see Table 4.11-1).

With respect to airport compatibility, the Project Site is located in ALUCP Zone C, all structures conform to applicable height standards without a variance, and the Project complies with use compatibility criteria, density, and open space requirements. With the required consultation with the military installations and R-2508 Airspace Complex, and imposition of conditions for dust control, Frequency Deconfliction, and lighting management under the Dark Skies Ordinance, the Project is considered compatible with the military aviation policies of the Kern County ALUCP. Table 4.11-2 confirms a less than significant thermal plume impact on aircraft operations at KIYK. With approval of the required discretionary actions and compliance with applicable local and agency requirements, the Project would be consistent with the applicable regulatory framework summarized in Table 4.11-4.

4.11.6 Cumulative Setting, Impacts and Mitigation Measures

The cumulative analysis area for land use and planning encompasses the one-mile study area surrounding the Project Site and the one-quarter mile corridor along the linear facility alignment in unincorporated Kern County, consistent with the geographic scope used for the environmental setting analysis above. This area encompasses the community of Inyokern, the Inyokern Airport planning area, adjacent transportation corridors, and nearby solar, utility, and commercial development.

The Project's incremental contribution to cumulative land use change in this area would not be considerable. The Project Site is designated for service-industrial use and would be developed consistent with its existing land use designation and zoning. The Project would not convert important farmland, affect Williamson Act lands, or create a new land use incompatibility that would not otherwise be addressed through the applicable discretionary review processes.

Past, present, and reasonably foreseeable future projects in the Project vicinity include the RB Inyokern Solar Project to the north, existing commercial and industrial development along SR-178 and US 395, and utility infrastructure improvements in the area. The full list of past, present, and reasonably foreseeable future projects evaluated in this cumulative analysis is identified in Section 3.0 (Project Description) of this Application, which enumerates the eleven (11) projects within the cumulative study area; that list is incorporated by reference into this section. Each of these projects is subject to applicable CEQA review, Kern County entitlement requirements, and the same land use plan and policy framework applicable to the RBIDC Project. The Project's contribution to cumulative land use change, when considered together with these other projects, would not result

in a significant cumulative impact given the industrial character of the area, the applicable regulatory framework, and the absence of important farmland or other sensitive land use resources in the study area.

The Project would be consistent with the goals and policies of the Kern County General Plan and Inyokern Specific Plan applicable to land use and planning, as addressed in Sections 4.11.2 and 4.11.3 above.

Mitigation Measures: No additional mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

4.12 MINERAL RESOURCES

Introduction

This section of the Application discusses the affected environment and regulatory setting for mineral resources and geologic resources of commercial, recreational, or scientific value for the Project.

This section also describes the potential impacts to those resources that would result from implementation of the Project, identifies mitigation measures that would reduce these impacts where applicable, and evaluates the effectiveness of those measures and associated monitoring.

This section is supported by the Project Description, Site Plan (Appendix A.1); Preliminary Soil and Geology Evaluation, BSK Associates, BSK Project G25001225, December 12, 2025 (Appendix K.1); and Phase 1 Environmental Site Assessment (Appendix J.1), California Department of Conservation California Geological Survey (CGS) mapping and Kern County publications and maps including the County Mineral Resource Zones (MRZ) exhibit prepared for this Application (Figure 4.12-1) is also referenced throughout this section.

All CEC SPPE Appendix B, Section (g)(17) disclosure requirements applicable to geological hazards and resources are addressed in Section 4.12.5 of this chapter, including:

(A) A summary of the geology, seismicity, and geologic resources of the Project Site and related facilities;

(B) A map and description of all recognized stratigraphic units, geologic structures, and geomorphic features within two miles of the Project Site; and

(C) A map and description of geologic resources of recreational, commercial, or scientific value which may be affected by the Project, together with a discussion of the techniques used to identify and evaluate those resources.

All Section (g)(17) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.12.1–4.12.4. The Appendix B supplemental disclosure is provided in Section 4.12.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.12-A, immediately preceding Section 4.12.4.

4.12.1 Environmental Setting

Regional

Mineral deposits are non-renewable resources that necessitates the careful and efficient development of mineral resources in order to prevent the unnecessary waste of these deposits due to uncontrolled exploitation and uncontrolled urbanization. Management of these mineral

resources will protect not only future development of mineral deposit areas but will also limit the exploitation of mineral deposits so that adverse impacts caused by mineral extraction will be reduced or eliminated. This section discusses the existing conditions related to mineral resources within the region and local Project area, including the Project Site.

Mineral and petroleum resources are basic to Kern County's economy; Kern County produces more oil than any other county in the United States. Borax, cement and construction aggregates constitute major economic mineral resources. The State Geologist of the CGS classified 2,971 square miles of land in Kern County as Mineral Resource Zones (MRZs) of varying significance. The MRZ categories are defined as follows:

- MRZ-1: Areas where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2a: Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. Areas classified MRZ-2a contain discovered mineral deposits that are either measured or indicated reserves. Land included in MRZ-2a is of prime importance because it contains known economic mineral deposits.
- MRZ-2b: Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain inferred mineral resources as determined by their lateral extension from proven deposits or their similarity to proven deposits. Further exploration could result in upgrading areas classified MRZ-2b to MRZ-2a.
- MRZ-3a: Areas containing known mineral occurrences of undetermined economic significance. Further exploration could result in reclassification of all or part of these areas into the MRZ-2a or MRZ-2b categories.
- MRZ-3b: Areas containing inferred mineral occurrences of undetermined economic significance. Further exploration could result in the reclassification of all or part of these areas into the MRZ-2a or MRZ-2b categories.
- MRZ-4: Areas containing no known mineral occurrence.

Table 4.12-1 below is based on a report by Brett Koehler, published by the California Geological Survey (CDMG) (OFR 99-15 or Mineral Land Classification of Southeaster Kern County, California), that classifies land based on mineral potential under the Surface Mining and Reclamation Act (SMARA). Table 4.12-2 below demonstrates the classified mineral resources within Kern County that are part of the MRZ-2 group and, therefore, have a demonstrated mineral significance (as opposed to the MRZ-3 group, which has an undetermined mineral significance).

Table 4.12-1
Classified Mineral Resources in Kern County, CA

Mineral Resource	MRZ Classification	Number of Areas	Total Acreage
Borates	MRZ-2a and 2b	2	2,564
Limestone	MRZ-2a	4	2,008
Limestone	MRZ-2b	2	157
Silica	MRZ-2a	1	119
Pozzolan (essential cement additive)	MRZ-2b	1	72
Gold	MRZ-2a	3	849
Gold	MRZ-2b	8	6,619
Dimension Stone	MRZ-2a	2	527
SOURCE: Koehler, 1999.			

Borax

Borax constitutes a major economic mineral resource for Kern County. Borax, a borate mineral (a compound that contains Boron and oxygen), was discovered and put into production in 1872 in Nevada and later, in 1881, in Death Valley. Ironically, for five years the route traveled by Pacific Coast Borax Company's famous twenty mule team trains would pass within 15 miles of a buried deposit that would produce in about six minutes the equivalent tonnage hauled by the mule team during each trip. The discovery of borates in southeastern Kern County in the Kramer District was accidental, when a water well penetrated lakebeds containing colemanite (calcium borate) in 1913. In 1927 underground mining of the minerals kernite and borax began and continued until 1957, when underground operations ceased and open-pit mining began, eventually becoming the largest open-pit mine in California. Annually over 1.8 million tons are removed from this mine, which supplies about 40 percent of the world's supply of borates. There are several other sources of borate minerals in the County (CGS, 1999).

Limestone

Carbonate rocks were initially quarried in 1888 as a source of lime. By 1909 the limestone resources were used for the manufacture of Portland cement during the construction of the first Los Angeles aqueduct. Limestone has been mined continuously since 1921, just northeast of Tehachapi. The Tehachapi Plant was joined by California Portland Cement Company's Mojave Plant in 1955 and National Cement Company's Lebec Plant in 1976, making Portland cement production second only to borates in terms of economic importance to the region. Cement production is a major economic resources in the County.

Silica

Silica mining in Kern County, California, involves the extraction of quartz, quartzite, and silica-rich minerals, with significant deposits found in areas like the Rosamond Hills, El Paso Mountains,

and near Mojave. Key sites include the Rosamond Mine, Chalk Cliff Prospect, and the Silica Gem claims in Last Chance Canyon, which produce materials for industrial uses and gem collecting.

Pozzolan

Pozzolan mining in Kern County, California, is an active industrial sector focusing on volcanic tuff and mine waste to create sustainable, low-carbon concrete replacements. Key operations include the **Gem Hill Quarry Project** near Rosamond and new material extraction at the **Rio Tinto Boron facility**, aimed at supplying cementitious materials for regional infrastructure.

Petroleum Resources

As mentioned above, Kern County produces more oil than any other county in the United States. The valley floor area of Kern County and the surrounding lower elevations of the mountain ranges contain numerous deposits of oil and gas resources, a major economic resource for the County. The Project is not located within a known oil production field, nor does the site have a known active or abandoned well (CalGEM, 2020a). No significant petroleum resources have been discovered to date in the western Mojave Desert.

Sand and Gravel

Construction aggregates are a major economic mineral resource for Kern County. Sand and gravel have been determined to be important resources for construction, development, and physical maintenance, from highways and bridges to swimming pools and playgrounds. The availability of sand and gravel affects construction costs, tax rates, and affordability of housing and commodities. The State of California has statutorily required the protection of sand and gravel operations. Because transportation costs are a significant portion of the cost of sand and gravel, the long-term availability of local sources of this resource is an important factor in maintaining the economic attractiveness of a community to residents, business, and industry. The major resources of sand and gravel in Kern County are in stream deposits along the eastern side of the San Joaquin Valley and in the Sierra Nevada foothills, approximately 160 miles northwest of the Project Site, and in alluvial fan deposits along the north flank of the San Emidio and Tehachapi Mountains at the southern end of the County, approximately 30 miles west of the Project Site (CGS, 1999). Most of the recent alluvium in the San Joaquin Valley floor is composed of sand used as a source of road base material.

Precious Minerals (Gold and Silver)

In terms of total dollar value and number of deposits, gold is the most important metallic mineral commodity that has been mined in Kern County. The earliest mining in Kern County was in 1851 at placer gold deposits in Greenhorn Gulch, which drains into the Kern River about midway between Democrat Springs and Miracle Hot Springs. The first lode mining was in 1852, and by 1865 gold was being mined in four districts around the Kern River. Gold was first prospected in eastern Kern in the 1860s, with the two largest mines being established in the 1890s. The Yellow Aster and Golden Queen mines located in eastern Kern have yielded almost half of the total gold output of the county. The principal sources of silver in Kern County have been deposits in eastern Kern County. Although gold is the chief mineral

in value, silver is predominant by a 5:1 ratio and is an important by-product of the gold ore (CGS, 1999).

Dimension Stone

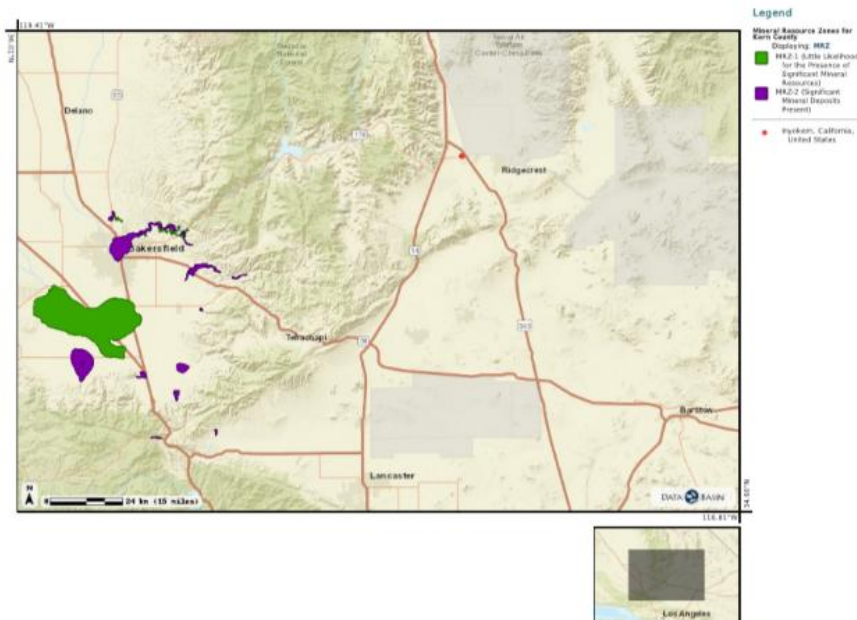
Dimension stone is natural rock materials quarried for the purpose of obtaining blocks or slabs that meet specification as to size (width, length, and thickness) and shape. Color grain texture and pattern, and surface finish, durability, strength, and polish ability are important selection criteria in determining dimension stone. Deposits of marble, sandstone, schist, and other rocks in Kern County have been sources of modest tonnages of building stone which have been utilized as dimension stone, field stone, rubble, and flagstone. Most of the dimension stone (marble and flagstone) was mined until 1904; field stone and flagstone have been mined mostly since about 1952 in the area around Randsburg (CGS, 1999).

Local

The Project Site is currently undeveloped and is located in the community of Inyokern. The community of Inyokern does not have any designated mineral resource areas. The closest potential mineral resource areas, as designated by the County as 8.4, Mineral and Petroleum (Minimum 5-Acre Parcel Size), are approximately 11 miles to the southeast of the Project Site (USGS, 2020).

There are no known oil, gas, or geothermal wells on the Project Site (CalGEM, 2026). Based on the Kern County MRZ exhibit prepared for this Application (Figure 4.12-1), the Project Site vicinity near Inyokern is not depicted within a mapped MRZ-2 area. A review of the California Geological Survey (CGS) Mine and Mineral Information System (MMIS) records for the Inyokern area identifies no active permitted surface mines within or immediately adjacent to the Project Site vicinity (CGS, 2024). No active commercial extraction of sand, gravel, or other mineral resources has been identified in the immediate Project area based on available CGS MMIS records and the DOC MRZ mapping reviewed for this Application (CGS, 2024; DOC, 2024).

Figure 4.12-1 Kern County Mineral Resource Zones — Project Vicinity



Source: California Department of Conservation MRZ Mapping; Kern County, 2024

The nearest active mine is the Yellow Treasure Mine that mines gold and copper, located approximately 2.6 miles east of the Project Site. **Table 4.12-1**, Mines within the Project Vicinity, shows the mines within a 5-mile radius of the Project area. Table 4.12-2, Mines within the Project Vicinity, lists the mines within a 5-mile radius of the Project area, their status, and the commodity being mined.

Table 4.12-2 - Mines within the Vicinity of the Project Area

Mine Title	Status	Commodity	Distance from Project Site
Yellow Treasure Mine	Producer	Gold; copper	2.6 miles east
Bertrand Sand Pit	Past Producer	Sand and gravel; construction	3.4 miles southeast
Bowman Road Pit	Past Producer	Sand and gravel; construction	3.9 miles southeast
Caltrans #264	Unknown	Sand and gravel; construction	3.9 miles southeast
Tungsten Peak Mine	Past Producer	Tungsten	3.9 miles northwest
Caltrans #262	Unknown	Sand and gravel; construction	3.9 miles southeast
High Peak Mine	Past Producer	Tungsten	4.1 miles northwest
Wilkerson No. 1 Prospect	Prospect	Thorium	4.9 miles west

SOURCE: USGS, 2020.

4.12.2 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area. The Project Site is located on privately owned land and is not subject to Bureau of Land Management (BLM) land use planning requirements applicable to federal lands. Federal law does not regulate the land use designation of mineral resources on private lands; that authority resides with the State of California and Kern County.

State

Surface Mining and Reclamation Act (SMARA) — Public Resources Code Section 2710 et seq.

SMARA provides for mineral land classification by the State Geologist and mineral resource designation by the State Mining and Geology Board (SMGB) to help identify and conserve mineral resources that could otherwise be precluded by incompatible land uses. Under SMARA, the California Department of Conservation (DOC) classifies lands into Mineral Resource Zones (MRZ) based on the presence and significance of identified mineral deposits. When the SMGB designates a mineral resource area within an MRZ-2 zone, local lead agencies are required to consider the effect of proposed land use decisions on the long-term availability of those resources (PRC Section 2762). Lead agencies must submit general plan amendments, specific plans, and rezonings affecting designated areas to the SMGB for review. The SMGB's recommendations must be considered, though they are not binding on the lead agency.

California Environmental Quality Act (CEQA) — Public Resources Code Section 21000 et seq.

CEQA requires that the environmental effects of a proposed Project be evaluated, including potential impacts on mineral resources. Appendix G of the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.) identifies the significance thresholds applicable to mineral resources. These thresholds form the basis for the impact analysis in Section 4.12.3.

California Energy Commission SPPE — Appendix B (20 CCR Division 2, Chapter 5, Appendix B)

CEC Appendix B, effective July 20, 2023, establishes information requirements for Small Power Plant Exemption (SPPE) applications. Section (g)(17), Geological Hazards and Resources, requires a summary of the geology, seismicity, and geologic resources of the Project Site; a map and description of stratigraphic units and geomorphic features within two miles of the Project Site; and a map and description of geologic resources of recreational, commercial, or scientific value that may be affected by the Project. These requirements are addressed in Section 4.12.5 of this chapter.

Local

Kern County General Plan — Chapter 1: Land Use, Open Space, and Conservation Element, Section 1.9

The Kern County General Plan, Chapter 1, Section 1.9 (Resource Goals and Policies) establishes goals and policies to protect areas of important resource potential, including mineral resources, for future use. The following goals and policies from the Conservation and Open Space Element are applicable to the Project:

- Goal 2:** Protect areas of important mineral, petroleum, and agricultural resource potential for future use.
- Goal 3:** Ensure the development of resource areas minimizes effects on neighboring resource lands.
- Policy 1:** Appropriate resource uses of all types will be encouraged as desirable and consistent interim uses in undeveloped portions of the County regardless of general plan designation.

The Kern County General Plan also incorporates the DOC's SMARA mineral land classifications into local land use planning. Locally designated mineral resource recovery sites, if any, would be identified in the General Plan or applicable specific plan and are subject to the protections established under CEQA Guidelines Appendix G, Threshold (b). All policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Inyokern Specific Plan

The Inyokern Specific Plan guides development within and surrounding the community of Inyokern through goals, policies, and implementation measures to accommodate growth while protecting the community's unique business, transportation, and environmental character. No policies or measures in the Inyokern Specific Plan are specifically applicable to mineral resources or mineral resource recovery sites. All policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

Kern County Zoning Ordinance — Title 19, Section 19.38.020 (M-2 Medium Industrial District)

The Project Site is within the M-2 (Medium Industrial) zoning district. Permitted and conditionally permitted uses within the M-2 zone are set forth in Section 19.38.020 of the Kern County Zoning Ordinance; mineral and aggregate extraction is not a listed permitted use within this district for the Project Site area. A County Conditional Use Permit (CUP) is required for construction and operation of the proposed Project.

4.12.3 Impacts and Mitigation Measures

Methodology

(1) Existing mineral resource conditions were evaluated by reviewing DOC SMARA classification records and MRZ mapping (DOC, 2024), the Kern County MRZ exhibit prepared for this Application (Figure 4.12-1), CGS Regional Geologic Map GAM 23 (Trona, 1962) as compiled in BSK Associates Figure 7 (Appendix K.1), CGS Mine and Mineral Information System (MMIS) records (CGS, 2024), the Phase 1 Environmental Site Assessment (Appendix J.1), and the Preliminary Soil and Geology Evaluation (BSK Associates, G25001225, December 2025; Appendix K.1), including field reconnaissance observations from the November 19, 2025 site visit.

The DOC MRZ mapping and CGS MMIS records were used to determine whether the Project Site overlaps a known mineral resource of regional or statewide significance and whether active mineral extraction operations exist in the Project vicinity.

In addition, the Kern County General Plan Conservation and Open Space Element was reviewed to determine whether the Project Site is located within a locally designated mineral resource recovery site; this determination is addressed by MM 4.12-1. A desktop review of the CGS Mineral Land Classification map (California Department of Conservation, California Geological Survey, maps.conservation.ca.gov/cgs/minerals, accessed April 2026) confirms the Project Site is not located within a mapped MRZ-2a or MRZ-2b zone. Impacts were analyzed using the CEQA significance criteria set forth below.

Thresholds of Significance

Pursuant to Appendix G of the State CEQA Guidelines and the Kern County CEQA Implementation Document, a proposed Project would have a significant impact on mineral resources if it would:

- (a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
- (b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Impact 4.12-1: Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

As stated above, there are no known oil, gas, or geothermal wells on the Project Site (CalGEM, 2026). Based on the Kern County MRZ exhibit prepared for this Application (Figure 4.12-1), the Project Site vicinity near Inyokern is not depicted within a mapped MRZ-2 area. A review of the California Geological Survey (CGS) Mine and Mineral Information System (MMIS) records for the Inyokern area identifies no active permitted surface mines within or immediately adjacent to the Project Site vicinity (CGS, 2024). No active commercial extraction of sand, gravel, or other mineral resources has been identified in the immediate Project area based on available CGS MMIS records and the DOC MRZ mapping reviewed for this Application (CGS, 2024; DOC, 2024).

Construction

Construction activities would involve grading, excavation, and permanent development of approximately 50 acres of currently undeveloped land. Based on the Kern County MRZ exhibit (Figure 4.12-1), the Project Site vicinity is not depicted within a mapped MRZ-2 area. The Project Site is underlain by Quaternary alluvial deposits (unit Qal) on a thermic fan piedmont landform; while alluvial deposits of this type may contain sand and gravel suitable for aggregate use, the available DOC MRZ mapping does not identify the Project Site as containing a significant mineral deposit of regional or statewide value (DOC, 2024; BSK Associates, G25001225, §2.6, Figure 7; Appendix K.1). Construction of the Project would not result in the loss of availability of a known mineral resource of regional or statewide significance.

Operation

Operation of the Project would not involve mineral extraction and would not directly consume or preclude access to any identified mineral resource. No active mineral extraction operations were identified in the Project vicinity based on available CGS MMIS and DOC records, and no evidence of active mining operations was observed during the November 2025 BSK site reconnaissance (BSK Associates, G25001225, §2.2; Appendix K.1). Ongoing operations would not indirectly affect off-site mineral resources or active mineral extraction operations through land use incompatibility.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less than significant.

Impact 4.12-2: Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Construction

A desktop review of the CGS Mineral Land Classification map (California Department of Conservation, California Geological Survey, accessed April 2026) confirms the Project Site is not located within a locally designated mineral resource recovery site delineated under the Kern County General Plan or another adopted local plan. Construction activities, including grading and permanent ground disturbance, would not result in the loss of availability of a locally designated mineral resource recovery site. MM 4.12-1 is retained as a project commitment to document and confirm the desktop review finding prior to issuance of grading permits.

Operation

Operation of the completed data center campus would not involve mineral extraction activities. Because the presence or absence of a locally designated mineral resource recovery site at the Project Site has been confirmed by a desktop review of the CGS Mineral Land Classification map (California Department of Conservation, California Geological Survey, accessed April 2026): the Project Site is not located within a locally designated mineral resource recovery site. Operational

land use incompatibility with locally designated mineral resource sites is not anticipated. MM 4.12-1 addresses this information gap prior to the commencement of ground disturbance.

Mitigation Measures: Implementation of MM 4.12-1 would be required.

Level of Significance: Less than significant with the stated mitigation measure.

Ref.	Appendix B Requirement	Section / Table	Status
(A) Setting and Technical Summary Requirements			
(g)(17)(A)	Summary of geology, seismicity, and geologic resources of the Project Site and related facilities	Sections 4.12.5.1 and 4.12.5.2; Table 4.12-3; Appendix K.1 (BSK Tables 3, 4, 5, 6)	✓ Addressed
(g)(17)(B)	Map and description of all recognized stratigraphic units, geologic structures, and geomorphic features within ~2 miles of the Project Site	Section 4.12.5.2; Appendix K.1 Figure 7 (BSK G25001225)	✓ Addressed
(B) Impact and Disclosure Requirements			
(g)(17)(C)	Map and description of geologic resources of recreational, commercial, or scientific value; techniques used to identify and evaluate those resources	Section 4.12.5.3; Figure 4.12-1; Appendix K.1 (BSK G25001225 §2.2)	✓ Addressed
CEQA (a)	Loss of known mineral resource of regional or statewide value	Section 4.12.3, Impact 4.12-1	✓ Addressed
CEQA (b)	Loss of locally designated mineral resource recovery site	Section 4.12.3, Impact 4.12-2; MM 4.12-1 (Section 4.12.4)	✓ Addressed
<i>Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(17). All criteria addressed in this chapter; full technical disclosure in Preliminary Soil and Geology Evaluation, BSK Associates G25001225 (filed as Appendix K.1 to this Application).</i>			

4.12.4 Mitigation Measures

MM 4.12-1: Mineral Resource Designation Verification and Response

Prior to issuance of grading permits and initiation of ground disturbance, the Applicant shall:

1. Verify whether the Project Site is located within a locally designated mineral resource recovery site delineated on an adopted local plan, including the Kern County General Plan Conservation and Open Space Element, the Inyokern Specific Plan, or any other applicable adopted land use plan. Verification shall include review of current adopted plan maps and, where confirmation is required, written inquiry to the Kern County Planning and Natural Resources Department.
2. Maintain documentation of the verification (e.g., relevant map excerpt, written confirmation from the Kern County Planning and Natural Resources Department, or equivalent record) in the Project file and submit documentation to the CEC and lead agency upon request prior to issuance of grading permits.
3. If the Project Site is confirmed to be within a locally designated mineral resource recovery area, the Applicant shall coordinate with Kern County Planning and Natural Resources Department and/or the lead agency prior to ground disturbance to evaluate whether the Project would preclude future extraction of that resource and shall identify feasible avoidance measures or other appropriate responses consistent with SMARA and applicable local policy. Documentation of this coordination shall be submitted to the CEC for review prior to issuance of grading permits.

Effectiveness and Monitoring. MM 4.12-1 is effective because it requires the foundational determination of local designation status prior to irreversible ground disturbance and establishes a clear process for evaluating and implementing appropriate responses if a locally designated mineral resource area is confirmed. Monitoring will consist of maintaining verification documentation in the Project file and submitting it to the CEC and lead agency upon request. Compliance shall be verified by the CEC as part of the SPPE permitting process prior to issuance of grading permits.

4.12.5 CEC SPPE Appendix B — Additional Geological Hazards and Resources Disclosure Requirements

This section provides the additional geological hazards and resources disclosure information required by CEC SPPE Appendix B, Section (g)(17). This information supplements the CEQA impact analysis provided in Sections 4.12.1 through 4.12.4 above. Appendix B, Section (g)(17), requires (A) a summary of the geology, seismicity, and geologic resources of the Project Site and related facilities; (B) a map and description of all recognized stratigraphic units, geologic structures, and geomorphic features within two miles of the Project Site; and (C) a map and description of geologic resources of recreational, commercial, or scientific value which may be affected by the Project, together with a discussion of the techniques used to identify and evaluate

those resources. Each of these requirements is addressed below, drawing from the Preliminary Soil and Geology Evaluation (BSK Associates, G25001225, December 2025; Appendix K.1).

Geology and Seismicity Summary — Appendix B Section (g)(17)(A)

The Project Site is situated within the Basin and Range geomorphic province near its boundary with the Mojave Desert province and close to the Sierra Nevada province (BSK Associates, G25001225, §2.6, citing CGS Note 36, 2002; Appendix K.1). The Basin and Range province is characterized by broad valleys separated by fault-block mountain ranges formed by crustal extension, with valley floors containing thick sequences of alluvial deposits derived from surrounding highlands. The IWV is bounded by the Sierra Nevada to the west, the Coso Range to the north, the Argus Range to the east, and the El Paso Mountains to the south.

Surface geology at the Project Site consists primarily of Quaternary alluvial deposits (unit Qal — Recent Alluvium) composed of sand, silt, and gravel (BSK Associates, G25001225, §2.6; Appendix K.1). The Project Site is situated on a thermic fan piedmont landform (USDA-NRCS Map Unit 45 — Typic Torriorthents and Typic Haplargids, thermic fan piedmonts), with surface soils consisting primarily of gravelly sandy loam (SM to SC-SM) overlying very gravelly coarse sand alluvium to depths beyond 60 inches (BSK Associates, G25001225, Table 1; Appendix K.1). Site topography is nearly flat to gently sloping, with an average elevation of ~2,430 feet above mean sea level and a northeast-trending gradient of less than two percent (BSK Associates, G25001225, §2.3; Appendix K.1).

Seismicity

The IWV region is tectonically active and influenced by the Eastern California Shear Zone, which accommodates significant northwest-trending right-lateral strike-slip faulting (BSK Associates, G25001225, §2.6; Appendix K.1). The Project Site is not located within an Alquist-Priolo Earthquake Fault Zone (EFZ); the nearest mapped EFZ is associated with the Little Lake Fault Zone, located ~2.6 miles north-northeast of the Project Site (BSK Associates, G25001225, §3.2, Table 3; Appendix K.1). The Project Site is not located within a CGS-mapped Seismic Hazard Zone for liquefaction or seismically induced landslides (BSK Associates, G25001225, §3.3; Appendix K.1). No evidence of active faulting was observed within the Project Site boundaries during BSK’s November 2025 site reconnaissance (BSK Associates, G25001225, §3.2; Appendix K.1).

Table 4.12-3 - Approximate Fault Distances from Project Site

Fault Zone	Approximate Distance and Direction
Little Lake Fault Zone (nearest Alquist-Priolo EFZ)	~2.6 miles, north-northeast

Southern Sierra Nevada Fault Zone	~3.5 miles, northwest
Little Lake Fault Zone (second segment)	~4.3 miles, northeast
Garlock Fault Zone (dominant seismic hazard contributor)	~15.4 miles, south
San Andreas Fault Zone	~75 miles, south-southwest
<i>Source: BSK Associates, Preliminary Soil and Geology Evaluation, G25001225, December 12, 2025, Table 3 (Appendix K.1). Dominant seismic hazard: Garlock Fault, modal M5.5 at ~8.7 km, extreme scenario ~M7.7 (BSK G25001225, §4.1).</i>	

Preliminary seismic design parameters for the Project Site are Seismic Design Category (SDC) D under the 2025 California Building Code and ASCE/SEI 7-22, with Risk-Targeted Maximum Considered Earthquake (MCER) spectral accelerations of $S_s = 1.68\text{--}1.69g$ and $S_1 = 0.48g$ based on Default Site Conditions (BSK Associates, G25001225, Tables 4 and 5; Appendix K.1). Geometric mean peak ground acceleration (PGAM) ranges from $0.74g$ to $0.75g$ at the maximum considered earthquake level (BSK Associates, G25001225, Table 6; Appendix K.1). Groundwater in the vicinity of the Project Site is located at depths ranging from ~210 to ~292 feet below ground surface based on available well records, significantly reducing liquefaction potential (BSK Associates, G25001225, §2.5, Tables 2 and §4.3; Appendix K.1). Final seismic design parameters shall be confirmed through Vs30 measurement during design-level geotechnical investigation.

Stratigraphic Units, Geologic Structures, and Geomorphic Features — Appendix B Section (g)(17)(B)

Surface geology at and within ~two miles of the Project Site consists primarily of Quaternary alluvial deposits (unit Qal — Recent Alluvium) overlying Pleistocene non-marine sedimentary deposits (unit Qc) in the broader IWV valley floor (BSK Associates, G25001225, §2.6, Figure 7, citing DOC Regional Geologic Map GAM 23, Trona, 1962; Appendix K.1). Bedrock exposures in nearby ranges include granitic rocks of the Sierra Nevada batholith (unit gr — Mesozoic Granitic Rocks), metamorphic units of Paleozoic age (unit ms — Pre-Cretaceous Metasedimentary Rocks), and Mesozoic basic intrusive rocks (unit bi), with localized Pleistocene volcanic basalts (unit Qpvp) and older Paleocene and Pliocene non-marine sedimentary units (units Epc and Pmlc) occurring south and southwest of the Project Site.

Geomorphic features in the IWV include fan aprons and fan piedmonts flanking the surrounding mountain ranges, fan remnants on older landform positions, and interior drainage playas and lakebed deposits characteristic of closed arid basins (BSK Associates, G25001225, Table 1; Appendix K.1). The regional geologic structure is dominated by the Eastern California Shear Zone,

accommodating northwest-trending right-lateral strike-slip faulting that bounds and internally deforms the IWV basin. The geologic map of these stratigraphic units and geomorphic features within ~two miles of the Project Site is provided as Figure 7 in Appendix K.1 (BSK Associates, G25001225, based on DOC GAM 23, Trona, 1962), as required by CEC Appendix B §(g)(17)(B). The subtransmission line easement corridor (APN 084-010-48) extending from the southeastern corner of the Project Site to the SCE POI along W. Graaf Road is underlain by the same Quaternary alluvial deposits as the main Project Site.

Geologic Resources of Recreational, Commercial, or Scientific Value — Appendix B Section (g)(17)(C)

As required by CEC Appendix B §(g)(17)(C), geologic resources of recreational, commercial, or scientific value in the Project vicinity were identified using the following methods: (1) review of the Kern County MRZ exhibit prepared for this Application (Figure 4.12-1); (2) review of DOC SMARA classification records and DOC MRZ mapping (DOC, 2024); (3) review of the CGS Regional Geologic Map (GAM 23, Trona, 1962) as compiled in BSK Associates Figure 7 (Appendix K.1); (4) review of CGS Mine and Mineral Information System (MMIS) records for the Project vicinity (CGS, 2024); (5) review of the Phase 1 Environmental Site Assessment (Appendix J.1); and (6) review of field reconnaissance observations recorded in the Preliminary Soil and Geology Evaluation, including BSK's November 19, 2025 site visit (BSK Associates, G25001225, §2.2; Appendix K.1). No dedicated field investigation specifically targeting commercial or scientific geologic resources was conducted for this Application; findings are based on desktop records review and the BSK site reconnaissance.

Based on this review, no geologic resources of recognized recreational, commercial, or scientific value — such as designated fossil localities, significant geomorphic features, heritage mine sites, mineral collecting sites, or formally established scientific research areas — were identified within or immediately adjacent to the Project Site. BSK's November 2025 site reconnaissance identified several piles of broken concrete, asphalt, and gravel near the south-southeast portion of the property, and remnants of a deteriorated paved frontage road north of Highway 178; neither feature constitutes a commercial mineral resource operation (BSK Associates, G25001225, §2.2; Appendix K.1). The existing borrow pit on the eastern area of the Site represents a prior ground disturbance for roadway construction fill and does not constitute a commercial mineral resource operation (Appendix J.1). If subsequent geological investigations identify geologic resources of commercial, recreational, or scientific value within or proximate to the Project Site, this section shall be updated prior to filing.

4.12.6 Cumulative Setting, Impacts and Mitigation Measures

The geographic scope for evaluating cumulative mineral resource impacts is the Indian Wells Valley (IWV), consistent with the approach described in CEQA Guidelines Section 15130. This scope was selected because lands within the IWV share similar geologic characteristics, MRZ classifications, and potential mineral resource opportunities, as supported by the regional geologic setting described in the Preliminary Soil and Geology Evaluation (BSK Associates, G25001225, §2.6; Appendix K.1). As shown in Table AF-5, Cumulative Projects List (Section 4.2 of this

Application), approximately eleven (11) Projects are proposed or under construction in the IWV in Kern County.

Cumulative development in the IWV can contribute to the conversion of mineral resource lands where such lands are identified and protected for extraction. The Project Site vicinity near Inyokern is not depicted within mapped MRZ-2 areas at the scale of the Kern County MRZ exhibit (Figure 4.12-1), and regional geologic mapping confirms the Project Site is underlain by Quaternary alluvial deposits without identified significant mineral deposits (BSK Associates, G25001225, §2.6, Figure 7; DOC, 2024). The Project’s incremental contribution to cumulative loss of mineral resources of regional or statewide value is not considerable when combined with past, present, and reasonably foreseeable future Projects. Other Projects in the IWV are subject to the same CEQA review requirements and applicable state and local codes, including SMARA. Implementation of MM 4.12-1 ensures that any potential cumulative contribution to locally designated mineral resource impacts is identified and addressed prior to ground disturbance. The Project is consistent with Kern County General Plan, Chapter 1, Section 1.9 (Goals 2 and 3, Policy 1) and with all applicable goals and policies of the Inyokern Specific Plan with respect to mineral resource protection.

Mitigation Measures: Implementation of MM 4.12-1 would be required..

Level of Significance after Mitigation: Cumulative impacts to mineral resources of regional or statewide value would be less than significant. Cumulative impacts to locally designated mineral resource recovery sites are less than significant with mitigation.

Table 4.12-A - CEC SPPE Appendix B Compliance Cross-Reference — Section (g)(17) Geological Hazards and Resources

Ref.	Appendix B Requirement	Section / Table	Status
(A) Setting and Technical Summary Requirements			
(g)(17)(A)	Summary of geology, seismicity, and geologic resources of the Project Site and related facilities	Sections 4.12.5.1 and 4.12.5.2; Table 4.12-3; Appendix K.1 (BSK Tables 3, 4, 5, 6)	✓ Addressed
(g)(17)(B)	Map and description of all recognized stratigraphic units, geologic structures, and geomorphic features within ~2 miles of the Project Site	Section 4.12.5.2; Appendix K.1 Figure 7 (BSK G25001225)	✓ Addressed

(B) Impact and Disclosure Requirements

(g)(17)(C)	Map and description of geologic resources of recreational, commercial, or scientific value; techniques used to identify and evaluate those resources	Section 4.12.5.3; Figure 4.12-1; Appendix K.1 (BSK G25001225 §2.2)	✓ Addressed
CEQA (a)	Loss of known mineral resource of regional or statewide value	Section 4.12.3, Impact 4.12-1	✓ Addressed
CEQA (b)	Loss of locally designated mineral resource recovery site	Section 4.12.3, Impact 4.12-2; MM 4.12-1 (Section 4.12.4)	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(17). All criteria addressed in this chapter; full technical disclosure in Preliminary Soil and Geology Evaluation, BSK Associates G25001225 (filed as Appendix K.1 to this Application).

4.13 NOISE

This section of the Application describes the affected environment and regulatory setting for noise associated with the Project. This section also evaluates the potential noise-related impacts associated with the construction and operation of the Project and identifies Project design features, compliance measures, and mitigation measures that would avoid or reduce noise-related impacts, where applicable.

The proposed Project's potential noise-related impacts have been evaluated using relevant information from the Project Description, Site Plan (Appendix A.1), Generator Data and Specifications (Appendix A.3), and the Noise Analysis (Appendix G.1), and other published resources. The Noise Analysis was prepared by WJV Acoustics, Inc. (WJVA Report No. 25-45, March 17, 2026) and is attached as Appendix G.1.

CEC SPPE Appendix B requirements for noise are addressed in §4.13.5 of this chapter.

CEC SPPE Appendix B — Section (g)(4) Applicability

California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(4) requires the following information for the Noise technical area:

- (A) A land use map identifying residences, hospitals, libraries, schools, places of worship, or other facilities where quiet is an important attribute of the environment within the area impacted by the proposed project, defined as the area where there is a potential increase of 5 dB(A) or more over existing background levels.
- (B) A description of the ambient noise levels at representative sites, with measurements for a minimum of 25 consecutive hours at a minimum of one site. Results shall be reported as hourly averages in Leq, Ldn, or CNEL (dB(A)). L10, L50, and L90 values shall also be reported.
- (C) A description of the major noise sources of the project, including the range of noise levels and the tonal and frequency characteristics of the noise emitted.
- (D) An estimate of the project noise levels, during both construction and operation, at residences, hospitals, libraries, schools, places of worship, or other facilities where quiet is an important attribute of the environment, within the area impacted by the proposed project.
- (E) An estimate of the project noise levels within the project site boundary during both construction and operation and the impact to the workers at the site due to the estimated noise levels.
- (F) The audible noise from existing switchyards and overhead transmission lines that would be affected by the project, and estimates of the future audible noise levels that

would result from existing and proposed switchyards and transmission lines. Noise levels shall be calculated at the property boundary for switchyards and at the edge of the rights-of-way for transmission lines.

All Section (g)(4) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.13.1–4.13.4. The Appendix B supplemental disclosure is provided in Section 4.13.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.13-A, immediately preceding Section 4.13.4.

Terminology and Metrics

AMBIENT NOISE LEVEL: The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

CNEL: Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

DECIBEL, dB: A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

DNL/Ldn: Day/Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.

Leq: Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. Leq is typically computed over 1, 8 and 24-hour sample periods.

NOTE: The CNEL and DNL represent daily levels of noise exposure averaged on an annual basis, while Leq represents the average noise exposure for a shorter time period, typically one hour.

L_{max}: The maximum noise level recorded during a noise event.

L_n: The sound level exceeded "n" percent of the time during a sample interval (L₉₀, L₅₀, L₁₀, etc.). For example, L₁₀ equals the level exceeded 10 percent of the time.

NOISE EXPOSURE CONTOURS: Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and DNL contours are frequently utilized to describe community exposure to noise.

NOISE LEVEL REDUCTION (NLR): The noise reduction between indoor and outdoor environments or between two rooms that is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of "noise level reduction" combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.

SEL or SENEL: Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

SOUND LEVEL: The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

SOUND POWER LEVEL (L_W): Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

SOUND TRANSMISSION CLASS (STC): The single-number rating of sound transmission loss for a construction element (window, door, etc.) over a frequency range where speech intelligibility largely occurs.

Noted that various federal, state, and local agencies have opted to use CNEL or L_{dn} as the measure of community noise. While not identical, CNEL and L_{dn} are normally within 1dBA of each other

when measured in typical community environments, and many noise standards/regulations use the two interchangeably.

Sound Fundamentals

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium, such as air, and are sensed by the human ear. Sound is generally characterized by several variables, including frequency and amplitude. Frequency describes the sound's pitch (tone) and is measured in cycles per second (Hertz [Hz]), while amplitude describes the sound's pressure (loudness). Because the range of sound pressures that occurs in the environment is extremely large, it is convenient to express these pressures on a logarithmic scale that compresses the wide range of pressures into a more useful range of numbers. The standard unit of sound measurement is the decibel (dB). Hz is a measure of how many times each second the crest of a sound pressure wave passes a fixed point. For example, when a drummer beats a drum, the skin of the drum vibrates a given number of times per second. If the drum vibrates 100 times per second, it generates a sound pressure wave that is oscillating at 100 Hz, and this pressure oscillation is perceived by the ear/brain as a tonal pitch of 100 Hz. Sound frequencies between 20 and 20,000 Hz are within the range of sensitivity of the healthy human ear.

Sound levels are expressed by reference to a specified national/international standard. The sound pressure level is used to describe sound pressure (loudness) and is specified at a given distance or specific receptor location. In expressing sound pressure level on a logarithmic scale, sound pressure (dB) is referenced to a value of 20 micropascals (μPa). Sound pressure level depends not only on the power of the source but also on the distance from the source to the receiver and the acoustical characteristics of the sound propagation path (absorption, reflection, etc.).

Outdoor sound levels decrease logarithmically as the distance from the source increases. This decrease is due to wave divergence, atmospheric absorption, and ground attenuation. Sound radiating from a source in a homogeneous and undisturbed manner travels in spherical waves. As the sound waves travel away from the source, the sound energy is dispersed over a greater area, decreasing the sound pressure of the wave. Spherical spreading of the sound wave from a point source reduces the noise level at a rate of 6 dB per doubling of distance.

Atmospheric absorption also influences the sound levels received by an observer. The greater the distance traveled, the greater the influence of the atmosphere and the resultant fluctuations. Atmospheric absorption becomes important at distances greater than 1,000 feet. The degree of absorption varies depending on the frequency of the sound as well as the humidity and temperature of the air. For example, atmospheric absorption is lowest (i.e., sound carries farther) at high humidity and high temperatures, and lower frequencies are less readily absorbed (i.e., sound carries farther) than higher frequencies. Over long distances, lower frequencies become dominant as the higher frequencies are more rapidly attenuated. Turbulence, gradients of wind, and other atmospheric phenomena also play a significant role in determining the degree of attenuation. For example, certain conditions, such as temperature inversions, can channel or focus the sound waves, resulting in higher noise levels than would result from simple spherical spreading.

Sound from a tuning fork contains a single frequency (a pure tone), but most sounds in the environment do not consist of a single frequency. Instead, they are a broad band of many frequencies differing in sound level. Because of the broad range of audible frequencies, methods have been developed to quantify these values into a single number representative of human hearing. The most common method used to quantify environmental sounds consists of evaluating all frequencies of a sound according to a weighting system that is reflective of human hearing characteristics. Human hearing is less sensitive at low frequencies and extremely high frequencies than at the mid-range frequencies. This process is termed “A-weighting,” and the resulting dB level is termed the “A-weighted” decibel (dBA).

Because A-weighting is designed to emulate the frequency response characteristics of the human ear and reflect the way people perceive sounds, it is widely used in local noise ordinances and State and federal guidelines, including those of the State of California and Kern County. Unless specifically noted, the use of A-weighting is always assumed with respect to environmental sound and community noise, even if the notation does not include the “A.”

In terms of human perception, a sound level of 0 dBA is the threshold of human hearing and is barely audible by a healthy ear under extremely quiet listening conditions. This threshold is the reference level against which the amplitude of other sounds is compared. Normal speech has a sound level of 60 dBA. Sound levels above about 120 dBA begin to be felt inside the human ear as discomfort, progressing to pain at still higher levels. Humans are much better at discerning relative sound levels than absolute sound levels. The minimum change in the sound level of individual events that an average human ear can detect is about 1 to 3 dBA. A 3 to 5 dBA change is readily perceived. An increase (or decrease) in sound level of about 10 dBA is usually perceived by the average person as a doubling (or halving) of the sound’s loudness.

Because of the logarithmic nature of the dB, sound levels cannot be added or subtracted directly. However, some simple rules are useful in dealing with sound levels. First, if a sound’s acoustical energy is doubled, the sound level increases by 3 dBA, regardless of the initial sound level (e.g., 60 dBA + 60 dB = 63 dBA; 80 dBA + 80 dBA = 83 dBA). However, an increase of 10 dBA is required to double the perceived loudness of a sound, and a doubling or halving of the acoustical energy (a 3 dBA difference) is at the lower limit of readily perceived change.

Although dBA may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most ambient environmental noise includes a mixture of noise from nearby and distant sources that creates an ebb and flow of sound, including some identifiable sources plus a relatively steady background noise in which no particular source is identifiable. A single descriptor, termed the equivalent sound level (L_{eq}), is used to describe sound that is constant or changing in level. L_{eq} is the energy-mean dBA during a measured time interval. It is the “equivalent” sound level produced by a given constant source equal to the acoustic energy contained in the fluctuating sound level measured during the interval. In addition to the energy-average level, it is often desirable to know the acoustic range of the noise source being measured. This is accomplished through the maximum instantaneous (L_{max}) and minimum instantaneous (L_{min}) noise level indicators that represent the root-mean-square maximum and minimum noise levels measured during the monitoring interval. The L_{min} value obtained for a particular monitoring location is often called the acoustic floor for that

location.

To describe the time-varying character of environmental noise, the statistical or percentile noise descriptors L_{10} , L_{50} , and L_{90} may be used, which represent the noise levels equaled or exceeded during 10 percent, 50 percent, and 90 percent of the measured time interval, respectively. Sound levels associated with L_{10} typically describe transient or short-term events, L_{50} represents the median sound level during the measurement interval, and L_{90} levels are typically used to describe background noise conditions.

The Day-Night Average Sound Level (L_{dn} or DNL) represents the average sound level for a 24-hour day and is calculated by adding a 10 dBA penalty to sound levels during the night period (10 p.m. to 7 a.m.). The L_{dn} is the descriptor of choice and used by nearly all federal, State, and local agencies throughout the United States to define acceptable land use compatibility with respect to noise. Within California, the Community Noise Equivalent Level (CNEL) is sometimes used. CNEL is very similar to L_{dn} , except that an additional 5 dBA penalty is applied to the evening hours (7 p.m. to 10 p.m.). Because of the time-of-day penalties associated with the L_{dn} and CNEL descriptors, the L_{dn} or CNEL dBA value for a continuously operating sound source during a 24-hour period will be numerically greater than the dBA value of the 24-hour L_{eq} . Thus, for a continuously operating noise source producing a constant noise level operating for periods of 24 hours or more, the L_{dn} will be 6 dBA higher than the 24-hour L_{eq} value.

Vibration Fundamentals

As described in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment* (FTA, 2018), ground-borne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, ground-borne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving, and operation of heavy earth-moving equipment.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The relationship of PPV to RMS velocity is expressed in terms of the "crest factor," defined as the ratio of the PPV amplitude to the RMS amplitude. Peak particle velocity is typically a factor of 1.7 to 6 times greater than RMS vibration velocity (FTA, 2018). The dB notation acts to compress the range of numbers required to describe vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration sensitive equipment.

The effects of ground-borne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. Annoyance from vibration often occurs when the vibration levels exceed the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 inches per second (in/sec) PPV, while the standard for even the most sensitive and fragile structures is 0.12 in/sec PPV (FTA, 2018).

In residential areas, the background vibration velocity level is usually around 50 VdB (approximately 0.0013 in/sec PPV). This level is well below the vibration velocity level threshold of perception for humans, which is approximately 65 VdB. A vibration velocity level of 75 VdB is considered to be the approximate dividing line between barely perceptible and distinctly perceptible levels for many people (FTA, 2018).

Noise Fundamentals

An understanding of the physical characteristics of sound is useful for evaluating environmental noise. The methods and metrics used to quantify noise exposure, human response, and relative judgment of loudness are also discussed, and noise levels of common noise environments are presented.

Noise is generally defined as loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity and interferes with or disrupts normal activities. The effects of noise on people can be grouped into four general categories:

- Subjective effects (dissatisfaction, annoyance);
- Interference effects (communication and sleep interference, learning);
- Physiological effects (startle response); and
- Physical effects (hearing loss).

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. The subjective responses of individuals to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, its appropriateness to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity.

Interference effects of environmental noise refer to those effects that interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, and telephone conversations, and interference with sleep. Sleep interference effects can include both awakening from sleep and arousal to a lesser state of sleep.

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dB. Exposure to high noise levels affects the entire human system, with prolonged noise exposure in excess of 75 dB increasing body tensions and thereby affecting blood pressure, functions of the heart, and the nervous system. In comparison, extended periods of noise exposure above 90 dB could result in permanent hearing damage. People may consider louder environments adverse, but in many cases, people will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dB) or urban or industrial areas (65 to 80 dB).

4.13.1 Environmental Setting

Regional Setting

The Project Site is located in the Indian Wells Valley within the Western Mojave Desert in northeastern Kern County in the unincorporated community of Inyokern, approximately 9.4 miles south of Inyo County and 9.3 miles west of San Bernardino County. The project site is approximately 5.5 miles west of the City of Ridgecrest, 3 miles east of the community of Indian Wells, and 8 miles west of the China Lake Naval Air Weapons Station. Land uses in the project area are both industrial and residential, as well as some open space. Topography in the project area is relatively flat. The project area is primarily accessible, including emergency access, is provided on SR-178 (West Inyokern Road) and from HWY-395 from the east.

Existing ambient noise in the Indian Wells Valley region is primarily influenced by traffic on major roadways, including West Inyokern Road (SR-178) and US Highway 395 (HWY-395), intermittent commercial and residential land use activity, and aircraft overflights associated with the Inyokern Airport and the Naval Air Weapons Station at China Lake.

Local Setting

The project site is located on undeveloped privately-owned land in the unincorporated community of Inyokern, Kern County. The project site is relatively flat and has an elevation that ranges from approximately 2,300 to 2,400 feet (700 to 730 meters) above mean sea level (amsl). Existing development in the project vicinity includes a gas station convenience store, hardware store with outdoor storage and undeveloped land to the south, undeveloped land and the RB Solar Project solar facility to the north, undeveloped land to the east and North Brown Road and single-family residences to the west.

Existing Noise Environment

Existing noise levels in the project vicinity are dominated by traffic noise associated with vehicles on Brown Road and Inyokern Road (SR 178). Other existing noise sources identified during the project site visit include noise associated nearby commercial, industrial and residential land uses and aircraft overflights (Inyokern Airport and Naval Air Weapons Station, China Lake).

The proposed project is bound by United States Highway 395 (HWY-395) to the east and Brown Road to the west. Phase 1 is located north of Inyokern Road (State Route 178 [SR-178]), between Brown Road and HWY-395. Other major north-south roadways in the region are State Route 14

(SR-14), abutting the southern perimeter of the project site. SR-178 and HWY-395 are four-lane, divided highways that are considered major east-west and north-south transportation routes.

The Inyokern Airport is located directly west of the project site. According to the Kern County Airport Land Use Compatibility Plan (ALUCP), the project site is located within Zone C of the Inyokern Airport influence area. Therefore, the noise sources of vehicle traffic on area roadways, occasional aircraft overflights, and human activity in the community would generate noise that would establish the ambient noise environment of the project site and surrounding areas.

Noise Assessment Methodology

Measurements of existing ambient noise levels in the project vicinity were conducted between January 14-15, 2026.

Noise monitoring equipment consisted of Larson-Davis Laboratories Model LDL-820 sound level analyzers equipped with B&K Type 4176 1/2" microphones. The equipment complies with the specifications of the American National Standards Institute (ANSI) for Type I (Precision) sound level meters. The meters were calibrated with a B&K Type 4230 acoustic calibrator to ensure the accuracy of the measurements.

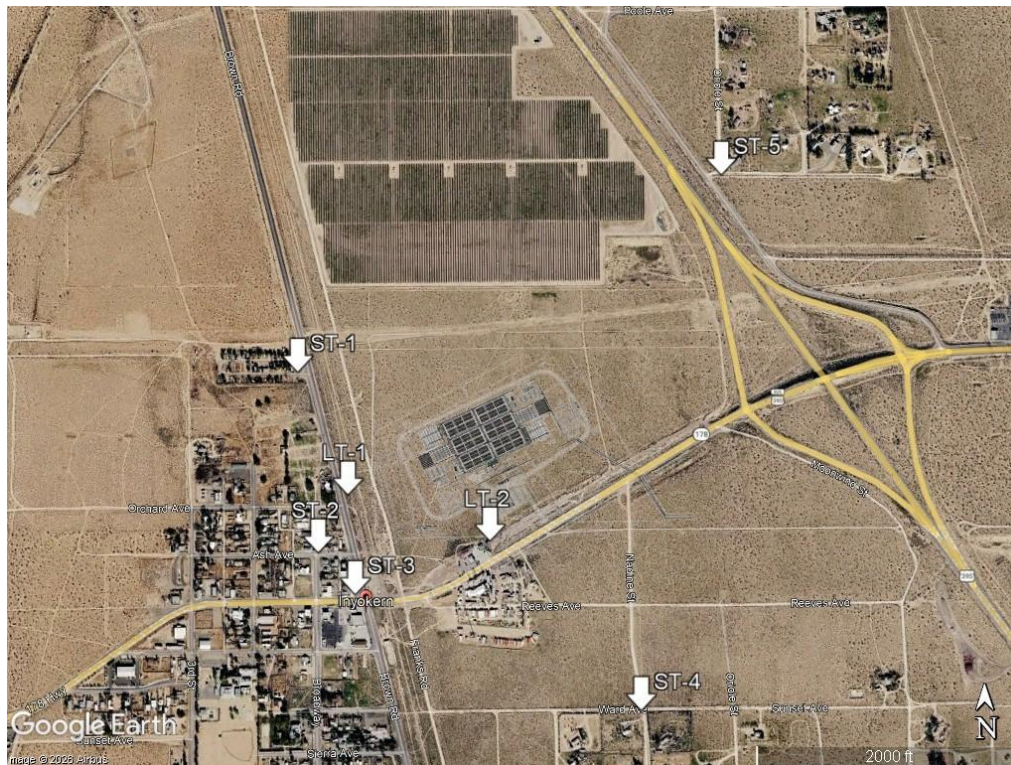
Long-term (24-hour) ambient noise level measurements were conducted at two (2) locations (sites LT-1 and LT-2). Noise levels at the two long-term noise measurement sites are summarized below, and provided graphically at the end of the report, and reported in terms of the Leq, L10, L50 and L90 statistical parameters, as required by the California Energy Commission (CEC).

Site LT-1 was located west of the project site and in the vicinity of the closest sensitive receptors (residential land uses) to the project site, along Brown Road. Site LT-1 was exposed to noise associated with vehicles traveling along Brown Road, as well as noise associated with nearby commercial and residential land uses, as well as aircraft overflights. Site LT-1 was located approximately 275 feet west of the project site western boundary. Noise levels were measured at site LT-1 for a continuous period of 25 hours (as required by the CEC).

Site LT-2 was located south of the project site and in the vicinity of nearby commercial land uses (Chevron gas station and convenience store), along W. Inyokern Road (SR 178). Site LT-2 was exposed to noise associated with vehicles traveling along W. Inyokern Road, as well as noise associated with nearby commercial land uses, as well as aircraft overflights. Site LT-2 was located approximately 125 feet south of the project site southern boundary. Noise levels were measured at site LT-2 for a continuous period of 25 hours (as required by the CEC).

Short-term (15-minute) ambient noise level measurements were conducted at five (5) additional locations (Sites ST-1 through ST-5). Two (2) individual measurements were taken at each short-term site to quantify ambient noise levels in the morning and afternoon hours. The project vicinity and locations of the noise monitoring sites are shown on Figure 4-13.1 below

Figure 4-13.1 Locations of Noise Monitoring Sites



Noise Measurement Results

Measured hourly energy average noise levels (L_{eq}) at site LT-1 ranged from a low of 51.1 dB between 2:00 a.m. and 3:00 a.m. to a high of 66.7 dBA between 4:00 p.m. and 5:00 p.m. Hourly maximum (L_{max}) noise levels at site LT-1 ranged from 77.0 to 91.0 dBA. Residual noise levels at the monitoring site, as defined by the L90, ranged from 29.1 to 48.5 dBA. The L90 is a statistical descriptor that defines the noise level exceeded 90% of the time during each hour of the sample period. The L90 is generally considered to represent the residual (or background) noise level in the absence of identifiable single noise events from traffic, aircraft, and other local noise sources. The measured L_{dn} value at Site LT-1 over the 24-hour monitoring period was 66.5 dB L_{dn} . Figure 3 graphically depicts hourly variations in ambient noise levels at site LT-1 over the 24-hour monitoring period. Figure 4 provides a photograph of site LT-1.

Measured hourly energy average noise levels (L_{eq}) at site LT-2 ranged from a low of 47.2 dB between 3:00 a.m. and 4:00 a.m. to a high of 58.4 dBA between 11:00 a.m. and noon. Hourly maximum (L_{max}) noise levels at site LT-2 ranged from 65.0 to 77.8 dBA. Residual noise levels at the monitoring site, as defined by the L90, ranged from 28.2 to 52.0 dBA. The measured L_{dn} value at Site LT-2 over the 24-hour monitoring period was 60.2 dB L_{dn} . Figure 5 graphically depicts hourly variations in ambient noise levels at site LT-2 over the 24-hour monitoring period. Figure 6 provides a photograph of site LT-2.

The short-term site noise measurement data included energy average (Leq) maximum (Lmax) as well as five (5) individual statistical parameters (including Leq, L10, L50 and L90), as required by the CEC. Short-term noise measurements were conducted for 15-minute periods. Observations were made of the dominant noise sources affecting the measurements. The statistical parameters describe the percent of time a noise level was exceeded during the measurement period. **Table 4.13-1** (restating Table III of the Noise Study) summarizes short-term noise measurement results.

Table 4.13-1 (Restating TABLE III, Noise Study)							
Site	Time	A-Weighted Decibels, dBA					Sources
		Leq	Lmax	L10	L50	L90	
ST-1	8:05 a.m.	65.6	77.8	71.0	49.8	40.6	TR, AC
ST-1	4:15 p.m.	64.1	76.2	68.4	49.0	41.2	TR, V, AC
ST-2	8:25 a.m.	60.4	71.5	62.4	46.2	38.7	TR, L
ST-2	4:35 p.m.	61.8	76.4	63.3	47.5	39.9	TR, AC
ST-3	8:45 a.m.	66.7	81.2	72.8	51.4	42.7	TR
ST-3	4:55 p.m.	64.9	74.4	70.0	51.1	43.2	TR
ST-4	9:10 a.m.	51.2	62.4	58.2	42.8	38.6	TR, D, AC
ST-4	5:15 p.m.	53.5	66.6	59.0	45.1	41.2	TR, AC
ST-5	9:40 a.m.	63.8	71.4	68.5	55.5	46.8	TR, D
ST-5	5:40 p.m.	65.7	76.2	69.1	57.4	50.7	TR

TR: Traffic AC: Aircraft V: Voices D: Dogs Barking B: Birds C: Construction Activities L: Landscaping Activities Source: WJV Acoustics, Inc

Noise Sensitive Receptors

Land uses deemed sensitive by the State of California include schools, hospitals, rest homes, and long-term care and mental care facilities, which are considered to be more sensitive to

ambient noise levels than others. Many jurisdictions also consider residential uses particularly noise-sensitive because families and individuals expect to use time in the home for rest and relaxation, and noise can interfere with those activities. Some jurisdictions may also identify other noise-sensitive uses such as churches, libraries, and parks. Land uses that are generally not considered to be noise sensitive receptors include office, commercial, and retail developments.

The Noise Element of *Kern County General Plan* establishes noise level criteria in terms of the Day-Night Average Level (Ldn) metric. The Noise Element establishes a land use compatibility criterion of 65 dB Ldn for exterior noise levels in outdoor activity areas of residential uses. The Noise Element also requires that interior noise levels attributable to exterior noise sources not exceed 45 dB Ldn.

Kern County considers the following land uses to be “noise-sensitive land uses”: Residential areas, Schools, Convalescent and acute care hospitals, Parks and recreational areas, and Churches.

Project-related noise levels were calculated at eight (8) nearby sensitive-receiver locations (R-1 through R-8), including five (5) residential land uses (R-1, R-2, R-4, R-7, R-8), one (1) church land use (R-3), one school land use (R-5), and one (1) commercial land use (R-6). It should be noted; the analyzed commercial land use (R-6) is not considered a noise-sensitive land use by Kern County but was analyzed due to its proximity to the project site. The locations of the eight analyzed sensitive receiver locations are provided as Figure 7.

Modeled project operational noise levels are evaluated against these standards in §4.13.3.

4.13.2 Regulatory Setting

Federal

Although there are no federal noise standards that are directly applicable to this Project, the following guidelines provide benchmarks for this analysis.

Noise Control Act of 1972

The Noise Control Act of 1972 (42 USC 4910) establishes a national policy to promote an environment for all Americans to be free from noise that jeopardizes their health and welfare. To accomplish this, the Act establishes a means for the coordination of federal research and activities in noise control, authorizes the establishment of federal noise emissions standards for products distributed in commerce, and provides information to the public with respect to the noise-emission and noise-reduction characteristics of such products.

U.S. Environmental Protection Agency (EPA), Environmental Noise Levels

The United States Environmental Protection Agency (USEPA) provided guidance on environmental noise levels in *Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety* (USEPA, 1974), commonly referenced as

the “Levels Document,” that establishes an L_{dn} of 55 dBA as the requisite level, with an adequate margin of safety, for areas of outdoor uses, including residences and recreation areas. The Levels Document does not constitute EPA regulations or standards, but identifies safe levels of environmental noise exposure without consideration of technical or economic feasibility for achieving these levels or other potentially relevant considerations.

Federal Energy Regulatory Commission, Noise Guidelines

Federal Energy Regulatory Commission (FERC) *Noise Guidelines on Noise Emissions from Compressor Stations, Substations, and Transmission Lines* (18 CFR 157.206(d)5), require that the noise attributable to any new compressor stations, compression added to an existing station, or any modification, upgrade, or update of an existing station must not exceed a L_{dn} of 55 dBA at any pre-existing noise-sensitive area (such as schools, hospitals, or residences). This policy was adopted based on the EPA-identified level of significance of 55 L_{dn} dBA.

Federal Highway Administration Noise Abatement Procedures (23 CFR Part 772)

The purpose of 23 CFR Part 772 is to provide procedures for noise studies and noise abatement measures to help protect the public health and welfare, supply noise abatement criteria, and establish requirements for information to be given to local officials for use in the planning and design of highways. It establishes five categories of noise sensitive receptors and prescribes the use of the hourly L_{eq} as the criterion metric for evaluating traffic noise impacts.

Department of Housing and Urban Development Standards

The Department of Housing and Urban Development (HUD) regulations (24 CFR Part 51) set forth the following exterior noise standards for new home construction assisted or supported by HUD:

- 65 L_{dn} or less – Acceptable;
- > 65 L_{dn} and < 75 L_{dn} – Normally unacceptable, appropriate sound attenuation measures must be provided; and
- > 75 L_{dn} – Unacceptable.

HUD’s regulations do not contain standards for interior noise levels. Rather, a goal of 45 dBA is set forth, and attenuation requirements are geared to achieve that goal.

Occupational Safety and Health Administration Occupational Noise Exposure

Occupational Safety and Health Administration (OSHA), *Occupational Noise Exposure; Hearing Conservation Amendment* (Federal Register 48 [46], 9738–9785, 1983) stipulates that protection against the effects of noise exposure shall be provided for employees when sound levels exceed 90 dBA over an 8-hour exposure period. Protection shall consist of feasible administrative or engineering controls. If such controls fail to reduce sound levels to within acceptable levels, personal protective equipment shall be provided and used to reduce exposure of the employee.

Additionally, a Hearing Conservation Program must be instituted by the employers whenever employee noise exposure equals or exceeds the action level of an 8-hour time-weighted average sound level of 85 dBA. The Hearing Conservation Program requirements consist of periodic area and personal noise monitoring, performance and evaluation of audiograms, provision of hearing protection, annual employee training, and record keeping.

Federal Transit Administration (FTA) Construction Noise Guidance.

Because Kern County does not establish specific allowable noise limits for construction activities, the Noise Analysis applies construction noise thresholds established by the FTA in its *Transit Noise and Vibration Impact Assessment Manual* (September 2018). The FTA thresholds applicable to this Project are 80 dBA Leq at residential land uses, 85 dBA Leq at commercial land uses, and 90 dBA Leq at industrial land uses during daytime construction hours.

Federal Highway Administration (FHWA) Traffic Noise and Construction Noise Models.

The FHWA Highway Traffic Noise Prediction Model (TNM Version 2.5) was used to evaluate project-related traffic noise along W. Inyokern Road (SR-178). The FHWA Roadway Construction Noise Model (RCNM) was used to estimate construction-phase noise levels at sensitive receptor locations.

State

California Government Code Section 65302(f) and Section 46050.1 of the Health Safety Code

The California Department of Health Services has studied the correlation of noise levels and their effects on various land uses and established guidelines for evaluating the compatibility of various land uses, for the noise elements of local general plans, as a function of community noise exposure. The guidelines are the basis for most noise element land use compatibility guidelines in California.

The State requires all municipalities to prepare and adopt a comprehensive long-range general plan. General plans must contain a noise element (California Government Code Section 65302(f) and Section 46050.1 of the Health Safety Code). Key Requirements of the Noise Element (65302(f)) are:

- **Identification & Analysis:** The noise element must quantify, to the extent practical, both current and projected noise levels.
- **Sources to Include:** The analysis must cover major noise sources, including highways/freeways, primary arterial roads, conventional railroad lines, aircraft flight paths, and local ground stationary noise sources (e.g., industrial plants, military installations).
- **Mitigation & Development:** Information from the noise element must be used to guide land use regulations and reduce community exposure to excessive noise.

- Guidelines: The element must recognize guidelines established by the Office of Noise Control in the State Department of Health Services.

The requirements for the noise element of the general plan include describing the noise environment quantitatively using a cumulative noise metric such as CNEL or DNL, establishing noise/land use compatibility criteria, and establishing programs for achieving and/or maintaining land use compatibility. Noise elements should address all major noise sources in the community, including mobile and stationary noise sources.

The land use compatibility for community noise environment chart identifies the normally acceptable range for several different land uses, as shown in **Figure 4.13-2, *Land Use Compatibility for Community Noise Environment***. Persons in low-density residential settings are most sensitive to noise intrusion, with noise levels of 60 dBA CNEL and below are considered “acceptable.” For land uses such as schools, libraries, churches, hospitals, and parks, acceptable noise levels go up to 70 dBA CNEL.

FIGURE 4.13-2 – Land Use Compatibility for Community Noise Environment

Land Use Category	Community Noise Exposure – Ldn or CNEL (dBA)											
	50	55	60	65	70	75	80					
Residential – Low Density Single Family, Duplex, Mobile Home	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable							
			Acceptable	Acceptable	Acceptable	Acceptable	Acceptable					
								Unacceptable	Unacceptable			
										Unacceptable	Unacceptable	Unacceptable
Residential – Multi-Family	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable							
					Acceptable	Acceptable	Acceptable	Acceptable				
								Unacceptable	Unacceptable			
										Unacceptable	Unacceptable	Unacceptable

Transient Lodging – Motel/Hotel	■	■	■	■	■	■							
						■	■	■	■				
										■	■	■	■
													■
Schools, Libraries, Churches, Hospitals, Nursing Homes	■	■	■	■	■	■	■	■	■				
						■	■	■	■				
										■	■	■	■
													■
Auditorium, Concert Hall, Amphitheaters													
	■	■	■	■	■	■	■	■	■				
									■	■	■	■	■
Sports Arena, Outdoor Spectator Sports													
	■	■	■	■	■	■	■	■	■	■	■		
										■	■	■	■
	■	■	■	■	■	■	■	■	■				

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	Conditionally Acceptable New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	Normally Unacceptable New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
	Clearly Unacceptable New construction or development generally should not be undertaken.

SOURCE: State of California, 2003.

California Code of Regulations Title 24

The State of California has adopted noise standards in areas of regulation that the federal government does not preempt. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation. State regulations governing noise levels generated by individual motor vehicles and occupational noise control are not applicable to planning efforts, nor are these areas typically subject to the California Environmental Quality Act (CEQA) analysis. State noise regulations and policies applicable to the proposed Project include Title 24 requirements and noise exposure limits for various land use categories. The 2019 California Building Code (Part 2, Title 24, Section 1204.6, California Code of Regulations) stipulates “interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric shall be either the day-night average sound level (Ldn) or the CNEL.

California Division of Occupational Safety and Health (Cal/OSHA), California Code of Regulations Title 8, §5097 — Occupational Noise Exposure.

Cal/OSHA Title 8 §5097 establishes a permissible exposure limit (PEL) of 90 dBA as an 8-hour time-weighted average (TWA) for construction and industrial workers. An action level of 85 dBA TWA triggers requirements for a Hearing Conservation Program. This standard applies to construction and operations workers at the Project Site and is addressed in Section 4.13.5.3. See below for a description of the Kern County General Plan Noise Element.

California Noise Control Act of 1973

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, declares that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also identifies a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of

California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the State to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

California Department of Transportation Construction Vibration Guidance Manual

The Caltrans Transportation and Construction Vibration Guidance Manual (Caltrans 2020) is a commonly used reference for evaluating construction-related vibration impacts. The manual provides guidance for determining annoyance potential criteria and damage potential threshold criteria. These criteria are provided below in Table 4.13-6: Caltrans Guideline Vibration Annoyance Potential Criteria, and Table 4.13-7: Caltrans Guideline Vibration Damage Potential Threshold Criteria, and are presented in terms of peak particle velocity (PPV) in inches per second (ips). The Noise Analysis applied this guidance to evaluate construction vibration impacts at the nearest sensitive receptors.

Table 4.13-6 - Caltrans Guideline Vibration Annoyance Potential Criteria

Human Response	Maximum PPV (inches/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.1
Severe	2.0	0.4

Source: Caltrans 2020

Key: PPV = peak particle velocity

Table 4.13-7 - Caltrans Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (inches/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile, historic buildings, ancient monuments	0.13	0.08
Fragile buildings	0.2	0.10
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.30
New residential structures	1.0	0.50
Modern industrial/commercial buildings	2.0	0.50

Source: Caltrans 2020

Key: PPV = peak particle velocity

Table 4.13-5 - Typical Levels of Ground-borne Vibration Impacts Velocity Level

Impacts	Velocity Level	Typical Sources (at 50 feet)
Minor cosmetic damage of fragile buildings	100	Blasting from construction projects
Difficulty with tasks such as reading a video display terminal screen	90	Bulldozers and other heavy tracked construction equipment
Residential annoyance, infrequent events	80	Rapid transit, upper range
Residential annoyance, frequent events	70	High speed rail, typical
Approximate threshold for human perception	60	Bus or truck, typical
None	50	Typical background vibration

Source: Kern County Planning and Natural Resources Department 2021

Note: Velocity measured by root mean square vibration velocity level in vibration decibels relative to 10⁻⁶ inches per second.

California Energy Commission (CEC) SPPE Appendix B §(g)(4) — Noise. The verbatim text of the applicable CEC Appendix B noise requirements is provided in the Applicability Box following the Introduction of this chapter. The Noise Analysis (Appendix G.1) was prepared consistent with all CEC Appendix B §(g)(4) requirements.

Consistent with the requirements of Appendix B §(g)(4)(A), the Noise Analysis (Appendix G.1, Figure 7) provides a land use map identifying noise-sensitive receptor locations within the area where construction or operation could result in a project-generated noise increase of 5 dB(A) or more over existing background levels (the "impact area"). The Noise Analysis evaluated eight receptor locations (R-1 through R-8) encompassing all facility types required by Appendix B, including five residential land uses (R-1, R-2, R-4, R-7, and R-8), one church (R-3), one school (R-5), and one commercial land use (R-6). The nearest residential receptors are single-family residences located west of Brown Road, at a distance of approximately 1,000 feet or greater from the center of the Project construction area. Receiver locations are depicted on the Sensitive Receptor Map (Appendix G.1, Figure 7), which is cross-referenced with Appendix B §(g)(10)(B).

No hospitals or libraries are located within the Project vicinity. As shown on the Sensitive Receptor Map submitted as Appendix B §(g)(10)(B), the nearest hospital is Ridgecrest Regional Hospital, located ~10.2 miles east of the Project Site — well beyond the Project's noise impact area. No libraries were identified within the vicinity of the Project Site. These facility types are therefore outside the 5 dB(A) impact zone and are not carried forward for further noise analysis.

Local

Kern County General Plan

Chapter 3: Noise Element; 3.3 Sensitive Noise Areas

The Noise Element of *Kern County General Plan* establishes noise level criteria in terms of the Day-Night Average Level (Ldn) metric. The Ldn is the time-weighted energy average noise level for a 24-hour day, with a 10 dB penalty added to noise levels occurring during the nighttime hours (10:00 p.m.-7:00 a.m.). The Ldn represents cumulative exposure to noise over an extended period of time and is therefore calculated based upon annual average conditions.

The Noise Element establishes a land use compatibility criterion of 65 dB Ldn for exterior noise levels in outdoor activity areas of residential uses. Outdoor activity areas generally include backyards of single-family residences and individual patios or decks of multi-family developments. The intent of the exterior noise level requirement is to provide an acceptable noise environment for outdoor activities and recreation.

The Noise Element also requires that interior noise levels attributable to exterior noise sources not exceed 45 dB Ldn. The intent of the interior noise level standard is to provide an acceptable noise environment for indoor communication and sleep. Excerpts from the Kern County General Plan Noise Element relevant to the project are provided below.

The following noise sensitive land uses have been identified in the County:

- Residential areas
- Schools
- Convalescent and acute care hospitals
- Parks and recreational areas
- Churches

Goal 1: Ensure that residents of Kern County are protected from excessive noise and that moderate levels of noise are maintained.

Goal 2 Protect the economic base of Kern County by preventing the encroachment of incompatible land uses near known noise producing roadways, industries, railroads, airports, oil and gas extraction, and other sources.

Policy 1: Review discretionary industrial, commercial, or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses.

- Policy 2:** Require noise level criteria applied to all categories of land uses to be consistent with the recommendations of the California Division of Occupational Safety and Health (DOSH).
- Policy 3:** Encourage vegetation and landscaping along roadways and adjacent to other noise sources in order to increase absorption of noise.
- Policy 4:** Utilize good land use planning principles to reduce conflicts related to noise emissions.
- Policy 5:** Prohibit new noise-sensitive land uses in noise-impacted areas unless effective mitigation measures are incorporated into the project design. Such mitigation shall be designed to reduce noise to the following levels: a) 65 dB Ldn or less in outdoor activity areas; b) 45 dB Ldn or less within interior living spaces or other noise sensitive interior spaces.
- Policy 6:** Ensure that new development in the vicinity of airports will be compatible with existing and projected airport noise levels as set forth in the ALUCP.
- Policy 7:** Employ the best available methods of noise control.
- Policy 8:** Enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code concerning the construction of new multiple-occupancy dwellings such as hotels, apartments, and condominiums.
- Measure A:** Utilize zoning regulations to assist in achieving noise-compatible land use patterns.
- Measure B:** Require proper acoustical treatment of transportation facilities, including highways, airports, and railroads.
- Measure C:** Review discretionary development plans, programs, and proposals, including those initiated by both the public and private sectors, to ascertain and ensure their conformance to the policies outlined in this element.
- Measure D:** Review discretionary development plans for proposed residential or other noise sensitive land uses in noise-impacted areas to ensure their conformance with the noise standards of 65 dB Ldn or less in outdoor activity areas and 45 dB Ldn or less within interior living spaces.
- Measure E:** Review discretionary development plans to ensure compatibility with adopted Airport Land Use Compatibility Plans.
- Measure F:** Require proposed commercial and industrial uses or operations to be designed or arranged so that they will not subject residential or other noise sensitive land uses to exterior noise levels in excess of 65 dB Ldn and interior noise levels in excess of 45 dB Ldn.

Measure G: At the time of any discretionary approval, such as a request for a General Plan Amendment, zone change or subdivision, the developer may be required to submit an acoustical report indicating the means by which the developer proposes to comply with the noise standards. The acoustical report shall:

- i. Be the responsibility of the applicant.
- ii. Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.
- iii. Be subject to the review and approval of the Kern County Planning Department and the Environmental Health Services Department. All recommendations therein shall be complied with prior to final approval of the project.

Measure H: Encourage cooperation between the County and the incorporated cities within the County to control noise.

Measure I: Noise analyses shall include recommended mitigation, if required, and shall:

- (a) Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
- (b) Include estimated noise levels, in terms of CNEL, for existing and projected future (10-20 years hence) conditions, with a comparison made to the adopted policies of the Noise Element.
- (c) Include recommendations for appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element.
- (d) Include estimates of noise exposure after the prescribed mitigation measures have been implemented. If compliance with the adopted standards and policies of the Noise Element will not be achieved, a rationale for acceptance of the project must be provided.
- (e) Develop implementation procedures to ensure that requirements imposed pursuant to the findings of an acoustical analysis are conducted as part of the project permitting process.

Chapter 5: Energy Element

Policy 10: The County should require acoustical analysis for energy project proposals that might impact sensitive and highly-sensitive uses in accordance with the Noise Element of the General Plan.

Construction Noise and Vibration

Section 8.36 (Noise Control) of the *Kern County Code of Ordinance* limits construction to the hours of 6:00 a.m. to 9:00 p.m. on weekdays, and between 8:00 a.m. and 9:00 p.m. on weekends, when construction is within 1,000 feet of a residence. Certain exceptions to these hours are specified in the code.

Kern County does not provide specific allowable noise limits and thresholds for construction noise sources. Therefore, the analysis of construction noise provided in this report applies construction noise thresholds established by the U.S Department of Transportation Federal Transit Administration (FTA). These FTA construction noise thresholds are applied to assess potential impacts resulting from temporary construction noise. The FTA provides these construction noise thresholds in the *Transit Noise and Vibration Impact Assessment Manual*³. Based upon these FTA guidelines, an exterior threshold of 80 dBA Leq is applied at residential land uses, 85 dBA Leq is applied at commercial land uses, and 90 dBA Leq is applied at industrial land uses, during daytime hours of construction activities.

Kern County does not have regulations that define acceptable levels of vibration. One of the most recent references suggesting vibration guidelines is the California Department of Transportation (Caltrans) *Transportation and Construction Vibration Guidance Manual*⁴. The Manual provides guidance for determining annoyance potential criteria and damage potential threshold criteria. These criteria are provided below in Table I and Table II, and are presented in terms of peak particle velocity (PPV) in inches per second (in/sec).

TABLE I - GUIDELINE VIBRATION ANNOYANCE POTENTIAL CRITERIA		
Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.1
Severe	2.0	0.4

NOTES: Transient sources create a single isolated vibration event, such as blasting or ball drops. Traffic, train, and most construction vibrations are considered continuous in/sec ppv = inches per second peak particle velocity - Not available. Source: Caltrans

TABLE II - GUIDELINE VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA		
Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent
Extremely fragile, historic buildings, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1

Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

NOTES: Transient sources create a single isolated vibration event, such as blasting or ball drops. Traffic, train, and most construction vibrations are considered continuous. in/sec ppv = inches per second peak particle velocity
Source: Caltrans 2023

Kern County Code of Ordinances

The Kern County Code of Ordinances, Chapter 8.36 (Noise Control), includes acceptable hours of construction, and limitations on construction related noise impacts on adjacent sensitive receptors.

Section 8.36.020: Prohibited Sounds

It is unlawful for any person to do, or cause to be done, any of the following acts within the unincorporated areas of the county:

- H. To create noise from construction, between the hours of nine (9:00) p.m. and six (6:00) a.m. on weekdays and nine (9:00) p.m. and eight (8:00) a.m. on weekends, which is audible to a person with average hearing faculties or capacity at a distance of one hundred fifty (150) feet from the construction site, if the construction site is within one thousand (1,000) feet of an occupied residential dwelling except as provided below:
 1. The resource management director or a designated representative may for good cause exempt some construction work for a limited time.
 2. Emergency work is exempt from this section.

Section 19.80.030.S(1) of Kern County Zoning Ordinance

Section 19.80.030.S(1) of the Kern County Zoning Ordinance restricts noise generated by commercial or industrial uses within 500 feet of a residential use or residential zone district. The commercial or industrial use shall not generate noise that exceeds an average 65 dB Ldn between the hours of 7 a.m. and 10 p.m. and shall not generate noise that exceeds 65 dB, or which would result in an increase of 5 dB or more from ambient sound levels, whichever is greater, between the hours of 10 p.m. and 7 a.m. Commercial or industrial facilities that are located in the M-3 zone district are exempt from these noise-generation restrictions.

Kern County Airport Land Use Compatibility Plan. The Kern County Airport Land Use Compatibility Plan (ALUCP) establishes noise contours and land use compatibility criteria for the

Inyokern Airport. The Project Site is located approximately one mile east of the Inyokern Airport. As evaluated in the Noise Analysis (Appendix G.1, Figure 8), the Project Site is not located within any Inyokern Airport noise contours and is compatible with the ALUCP.

Inyokern Specific Plan

The entire project site is subject to the provisions of the Inyokern Specific Plan, which contains goals, policies, and standards that are compatible with those of the Kern County General Plan, but are unique to the specific needs of the of the Inyokern Area. The Noise Element of the Inyokern Specific Plan has the purpose of identifying sources of noise within the Plan area, quantifying noise impacts, and providing for means of attenuation. The goals, policies, and implementation measures in the Inyokern Specific Plan for noise applicable to the project are provided below. The Inyokern Specific Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

Noise Element

- Goal 1: To protect the health of Kern County residents.
- Goal 2: To minimize disruption to human activities and conflicts resulting from excessive noise.
- Goal 3: To establish reasonable noise level standards, consistent with the *Countywide* Noise Element
- Policy 1: Noise emissions from new development will be controlled.
- Policy 3: Noise attenuation measures will be required of new development within areas subject to excessive noise.
- Policy 4: Land uses will be categorized in the following manner, and the noise level standards adopted in accordance with the Kern County Noise Element:
 - (a) Insensitive Land Uses. The noise level does not affect the successful operation of the particular activity. A wide variety of uses can be included in this category, including public utilities, transportation systems, and other noise-related uses.
 - (b) Moderately Sensitive Land Uses. Some degree of noise control must be present if these activities are to be successfully carried out. Included here are general business and recreational uses.
 - (c) Sensitive Uses. Lack of noise control will result in many of the effects described earlier in this Element. This category primarily contains residential uses.

- (d) **Highly Sensitive Uses.** A high degree of noise control is necessary for the successful operation of these activities. Examples include hospitals and churches.

Policy 5: The policies of the Kern County Noise Element are hereby adopted by reference.

Measure 1: The following standards are established as the maximum desired ambient noise levels:

Land Use Category	Day (dBA L50)	Night (dBA Ldn)	CNEL
Insensitive Uses	65	60	75
Moderately Sensitive Uses	60	55	70
Sensitive Uses	55	45	65
Highly Sensitive Uses	50	40	60

Measure 2: The implementation measures of the Kern County Noise Element are hereby adopted by reference.

4.13.3 Impacts and Mitigation Measures

Methodology

The proposed Project's potential noise-related impacts were evaluated by: (1) characterizing existing ambient noise conditions through long-term and short-term field monitoring; (2) estimating project-generated noise levels during construction and operation using accepted predictive models and manufacturer-supplied data; and (3) comparing estimated noise levels against applicable significance thresholds established in the Kern County General Plan Noise Element and the FTA construction noise guidance criteria. Vibration impacts were evaluated using Caltrans guidance for construction equipment source levels and attenuation rates. The methodology is consistent with the CEC Appendix B §(g)(4) requirements and is described in detail in the Noise Analysis (Appendix G.1).

The Noise Analysis employed the following methods and models, as described in detail in Appendix G.1:

- **Ambient Noise Monitoring:** Two long-term (LT-1 and LT-2) monitoring locations and five short-term (ST-1 through ST-5) monitoring locations were established to characterize existing baseline conditions. Both long-term sites were monitored for a

continuous period of 25 hours (January 14–15, 2026), as required by Appendix B §(g)(4)(B). Short-term sites were monitored twice each (morning and afternoon) using Larson-Davis Laboratories Model LDL-820 sound level analyzers equipped with B&K Type 4176 ½-inch microphones meeting ANSI Type I (Precision) standards; instruments were calibrated with a B&K Type 4230 acoustic calibrator. Results are reported as hourly averages in Leq and Ldn (dB(A)). The L10, L50, and L90 statistical parameters are also reported for all monitoring locations, as required by Appendix B §(g)(4)(B). Atmospheric conditions during the monitoring period included temperatures ranging from the mid-30s to low-70s °F, clear skies with no precipitation, wind speeds of approximately 0 to 12 mph, and relative humidity of approximately 20 to 80 percent.

- **Construction Noise:** Evaluated using the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM, FHWA-HEP-05-054) and Federal Transit Administration (FTA) construction noise guidance criteria for residential land uses (FTA, 2018). Construction noise levels were modeled for each of the three principal construction phases.
- **Operational Noise:** Calculated using manufacturer-supplied equipment sound levels summarized in Appendix G.1 (Appendix D) and standard distance attenuation (–6 dB per doubling of distance). Operational noise was calculated at all eight analyzed receiver locations (R-1 through R-8). For a conservative worst-case evaluation, the Noise Analysis assumed all 40 emergency generators could operate simultaneously and continuously over a 24-hour period.
- **Traffic Noise:** Calculated using the FHWA Highway Traffic Noise Prediction Model (TNM Version 2.5) and project-related traffic volumes obtained from the Project traffic study (Ruettgers & Schuler, Civil Engineers).
- **Vibration:** Evaluated using source level data and guidance from the California Department of Transportation (Caltrans) Transportation and Construction Vibration Guidance Manual (April 2020).

Thresholds of Significance

The Kern County CEQA Implementation Document and CEQA Guidelines Appendix G Environmental Checklist identify the following criteria to determine whether a Project could have a significant adverse effect related to noise. A proposed project would have a significant noise impact if it would:

- (a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- (b) Generate excessive ground borne vibration or ground borne noise levels; or

- (c) For a Project located within the vicinity of a private airstrip or an airport land use plan, or within two miles of a public airport, expose people residing or working in the Project area to excessive noise levels.

Impact 4.13-1: Construction and Operational Noise

This impact evaluates whether the Project would result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies.

Construction

Construction of the Project is anticipated to begin in 2027 and would require approximately 48 months to complete. Construction activities are organized into three principal phases: (1) site preparation, earthwork, and grading; (2) structural and building shell construction; and (3) mechanical, electrical, and data hall systems installation, followed by commissioning and closeout.

Construction activities would be limited to daytime hours consistent with Kern County Code §8.36, which restricts construction within 1,000 feet of a residence to the hours of 6:00 a.m. to 9:00 p.m. on weekdays and 8:00 a.m. to 9:00 p.m. on weekends. Construction would generally occur between 7:00 a.m. and 6:00 p.m., Monday through Friday. Any work outside these hours would be coordinated with the appropriate agencies and would conform to the applicable County ordinance.

The Noise Analysis estimated construction noise levels at noise-sensitive receptors using the FHWA RCNM. Construction noise levels were modeled from the approximate geometric center-point of the Project construction area at setback distances of 500 feet, 750 feet, and 1,000 feet. The nearest residential receptors are located at distances of approximately 1,000 feet or greater from the construction center-point. Peak noise levels for each of the three construction phases are presented in Table 4.13-2 below, restating Appendix G.1 Table V. At a distance of 1,000 feet, modeled peak construction noise levels range from approximately 54 to 58 dBA Leq — well below the applicable FTA threshold of 80 dBA Leq at residential land uses.

Table 4.13-2 - Construction Noise Levels by Phase, dBA Leq (Restating Appendix G.1, Table V)

Construction Phase	500 Feet¹	750 Feet¹	1,000 Feet¹
Phase 1 — Site Preparation, Earthwork, and Grading	64	61	58
Phase 2 — Structural Construction, Utilities, and Paving	61	57	55

Construction Phase	500 Feet ¹	750 Feet ¹	1,000 Feet ¹
Phase 3 — Mechanical, Electrical, and Commissioning	60	56	54
FTA Residential Threshold (dBA Leq)	80	80	80
Threshold Exceeded?	No	No	No

¹ Distances measured from the approximate geometric center-point of the overall Project construction area.

Source: FHWA RCNM; WJV Acoustics, Inc.

To minimize temporary noise effects at sensitive receptors, the Project would implement the following construction noise best management practices (BMPs) and site controls:

- **Work Hours:** Conduct construction activities during daytime hours consistent with Kern County Code §8.36; schedule the loudest activities during mid-day hours where feasible.
- **Equipment Mufflers and Maintenance:** Require properly functioning mufflers and sound control devices on all internal combustion equipment; maintain equipment in good working order.
- **Idling Limits:** Enforce no-idling practices for construction equipment and delivery trucks consistent with applicable CARB diesel idling restrictions for compression ignition engines.
- **Staging and Siting:** Locate stationary construction equipment as far from noise-sensitive receptors as feasible; use building footprints, grading berms, or temporary features as shielding where feasible.
- **Temporary Noise Barriers (as needed):** Deploy temporary noise control barriers if construction must occur close to noise-sensitive receptors or if complaint monitoring indicates a need for additional controls.
- **Notification and Complaint Response:** Designate a disturbance coordinator to receive and respond to noise complaints during construction and implement corrective actions such as equipment relocation, barrier installation, or scheduling changes.

Operation

Operational noise sources include the emergency generators, cooling towers, chillers, transformers, and other outdoor mechanical equipment described in Section 4.13.5.2. The generators (40 Caterpillar 3516E units) would be operational only during emergencies (utility power outages) or for periodic maintenance and testing. Under typical operating conditions, the generators would not be operational.

The Noise Analysis calculated worst-case operational noise levels at all eight analyzed receiver locations (R-1 through R-8) assuming all 40 generators and all other mechanical equipment operate simultaneously and continuously over a 24-hour period. Results are presented in Table 4.13-3 below, restating Appendix G.1 Table VII. Under this conservative worst-case assumption, calculated operational noise levels range from 43 to 52 dBA Leq and 49 to 58 dB Ldn at the analyzed receiver locations. These levels do not exceed the Kern County exterior noise level standard of 65 dB Ldn at any off-Site noise-sensitive receptor and do not exceed existing ambient noise levels.

Table 4.13-3 - Project Operational Noise Levels at Sensitive Receptors (Restating Appendix G.1, Table VII)

Receiver	Land Use Type	Project Operational Noise (Leq, dBA)	Project Operational Noise (Ldn, dB)	Kern County Standard (dB Ldn)	Significant Impact?
R-1	Residential	48	54	65	No
R-2	Residential	50	56	65	No
R-3	Church	48	54	65	No
R-4	Residential	49	55	65	No
R-5	School	43	50	65	No
R-6	Commercial	52	58	65	No
R-7	Residential	44	50	65	No
R-8	Residential	43	49	65	No

Worst-case scenario: all 40 generators and all mechanical equipment operating simultaneously and continuously over a 24-hour period. Kern County exterior noise level standard for sensitive receivers: 65 dB Ldn. R-6 (Commercial) is not considered a noise-sensitive land use by Kern County but is included due to its proximity to the Project Site. Source: WJV Acoustics, Inc.

The Project would incorporate the following operational noise design features and commitments:

- **Sound-Attenuating Equipment:** Utilize sound-attenuated generator enclosures and appropriate exhaust attenuation consistent with final equipment selection and manufacturer recommendations.
- **Equipment Siting and Shielding:** Site major noise-generating equipment (generator yards and mechanical plants) and use buildings and structures as shielding, consistent with the Site arrangement evaluated in the Noise Analysis.
- **Design-Change Trigger:** If final equipment selection or Site layout differs materially from the assumptions used in the Noise Analysis, the Project would evaluate whether additional acoustic treatments are necessary to maintain compliance with applicable noise standards and would update the noise analysis prior to commencing construction of the affected phase.

The Noise Analysis also evaluated project-related increases in traffic noise exposure along W. Inyokern Road (SR-178). Results are summarized in **Table 4.13-4**. Project-related traffic would not result in any measurable increase in traffic noise exposure along SR-178 during either the construction phase or the operational phase (0 dB change).

Table 4.13-4 (Restating Appendix G.1, Table VI)

Project-Related Traffic Noise Exposure Levels, dB Ldn

Roadway	Project Phase	Existing Ldn (dB)	Existing Project with Ldn (dB)	Change (dB)	Significant Impact?
W. Inyokern Rd (SR-178)	Construction	57	57	0	No
W. Inyokern Rd (SR-178)	Operational	57	57	0	No

Existing traffic noise exposure with the Project compared to existing traffic noise exposure without the Project, at a reference setback distance of 100 feet from the centerline of the roadway. Source: WJV Acoustics, Inc.; Ruettggers & Schuler Civil Engineers.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Impact 4.13-2: Ground borne Vibration

This impact evaluates whether the Project would result in generation of excessive ground borne vibration or ground borne noise levels.

Construction

Construction activities have the potential to generate ground borne vibration from heavy equipment operation. The Noise Analysis evaluated construction vibration using the Caltrans Transportation and Construction Vibration Guidance Manual (April 2020). Based on standard vibration source levels normalized to 25 feet and propagated to the setback distances applicable to the Project using the Caltrans attenuation formula, vibration levels from anticipated construction equipment at the nearest residential receptors (~1,000 feet or greater from the construction center-point) would be well below the Caltrans annoyance potential criteria for residential structures under both transient and continuous source categories (Table I of the Noise Analysis). Vibration levels would not exceed applicable damage potential threshold criteria (Table II of the Noise Analysis).

Operation

The Project does not include operational activities that would generate significant ground borne vibration. Emergency generators and mechanical equipment produce airborne noise, not meaningful ground borne vibration at the distances applicable to the nearest receptors.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Impact 4.13-3: Airport Noise Exposure

This impact evaluates whether the Project would expose people residing or working in the Project area to excessive noise levels associated with airport operations, given that the Project Site is located within two miles of a public airport.

Construction

Construction activities would not generate noise that would affect the Inyokern Airport or alter aircraft noise exposure at the Project Site. The proximity to the airport does not create a significant construction-phase noise impact.

Operation

The Inyokern Airport is located approximately one mile west of the Project Site. As evaluated in the Noise Analysis (Appendix G.1, Section 4e and Figure 8), the Project Site is not located within any Inyokern Airport noise contours per the Kern County Airport Land Use Compatibility Plan. The Project is compatible with the ALUCP with respect to aircraft noise exposure. The Project

would not expose people residing or working in the Project area to excessive aircraft-related noise levels.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

4.13.4 Mitigation Measures

No mitigation measures are required for noise, vibration, or airport noise impacts. The Project's construction noise BMPs, operational design features, and worker protection commitments described in Section 4.13.3 are project design features incorporated into the Project description. The compliance cross-reference table for CEC SPPE Appendix B §(g)(4) is provided below as Table 4.13-A.

Table 4.13-A

CEC SPPE Appendix B §(g)(4) Compliance Cross-Reference

Ref.	Appendix B Requirement	Section / Table	Status
SETTING REQUIREMENTS			
§(g)(4)(A)	Land use map identifying noise-sensitive facilities within the 5 dB(A) impact area	§4.13.1.2; §4.13.5.1	✓ Addressed
§(g)(4)(B)	Ambient noise levels at representative sites; 25-hr min. at one site; Leq, Ldn, L10/L50/L90 reported	§4.13.1.3; §4.13.1.4; Table 4.13-1	✓ Addressed
IMPACT AND DISCLOSURE REQUIREMENTS			
§(g)(4)(C)	Description of major noise sources including range of levels and tonal/frequency characteristics	§4.13.5.2	✓ Addressed

Ref.	Appendix B Requirement	Section / Table	Status
§(g)(4)(D)	Estimated project noise levels during construction and operation at sensitive receptors	§4.13.3; Tables 4.13-2, 4.13-3, 4.13-4 (traffic noise: Table 4.13-4, SR-178)	✓ Addressed
§(g)(4)(E)	Estimated on-site noise levels during construction and operation; worker impacts	§4.13.5.3	✓ Addressed
§(g)(4)(F)	Audible noise from switchyards and overhead transmission lines; future noise levels	§4.13.5.4	Partial — Supplemental analysis pending SCE substation design finalization

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(4). All criteria addressed in this chapter; full technical disclosure in Noise Analysis (Appendix G.1) (filed as a supporting exhibit to this Application).

4.13.5 CEC SPPE Appendix B — Additional Noise Disclosure Requirements

This section provides the additional noise disclosure information required by CEC SPPE Appendix B, Section (g)(4). This information supplements the CEQA impact analysis provided in Sections 4.13.1 through 4.13.4 above. Appendix B, Section (g)(4), requires a land use map identifying noise-sensitive facilities within the impact area; a description of major noise sources including tonal and frequency characteristics; estimates of on-site noise levels and worker impacts; and audible noise calculations for switchyards and transmission lines. Each of these requirements is addressed below.

Land Use Map — Noise-Sensitive Receptors — Appendix B §(g)(4)(A)

Appendix B §(g)(4)(A) requires a land use map identifying residences, hospitals, libraries, schools, places of worship, or other facilities where quiet is an important attribute of the environment within the area impacted by the proposed Project. The impact area is defined as the area where construction or operation could cause a noise increase of 5 dB(A) or more over existing background levels.

The land use map required by Appendix B §(g)(4)(A) is provided as Appendix G.1, Figure 7 (Analyzed Sensitive Receptors). As described in Section 4.13.1.2, Figure 7 depicts the locations of eight analyzed receiver locations (R-1 through R-8) encompassing five residential land uses, one church, one school, and one commercial land use. The Sensitive Receptor Map submitted as

Appendix B §(g)(10)(B) confirms that no hospitals or libraries are located within the 5 dB(A) impact area. The nearest hospital is Ridgecrest Regional Hospital, located ~10.2 miles east of the Project Site. No libraries were identified within the Project vicinity.

Noise Source Description — Range of Levels and Tonal/Frequency Characteristics — Appendix B §(g)(4)(C)

Appendix B §(g)(4)(C) requires a description of the major noise sources of the Project, including the range of noise levels and the tonal and frequency characteristics of the noise emitted. Manufacturer-supplied sound levels for all outdoor operational equipment are provided in Appendix G.1 (Appendix D).

Construction Equipment. Construction activities would involve a range of heavy equipment, including backhoes, excavators, dozers, graders, scrapers, cranes, trucks, concrete saws, pneumatic tools, and portable generators. Based on FHWA reference data summarized in Appendix G.1 (Table IV), individual construction equipment produces noise levels in the range of approximately 63 to 96 dBA at 250 feet from the equipment source. Construction noise is broadband in character, spanning low through mid frequencies, with no prominent tonal components under typical conditions.

Emergency Diesel Generators (40 Caterpillar 3516E units). Each enclosed generator unit has an indicative full-load sound level of approximately 65 dBA at 7 meters (~23 feet), with a range of ± 5 dBA subject to final procurement and muffler selection. Diesel generators produce broadband mechanical and exhaust noise with energy concentrated in the low-to-mid frequency range. Prominent tonal components may occur at engine firing frequencies and harmonics, depending on the final muffler selection (industrial, critical, or hospital grade).

Cooling Towers (2 BAC Series 3000 units). Manufacturer-rated sound level: 80 dBA at 10 feet. Cooling towers produce broadband fan noise and water discharge noise spanning low through mid frequencies, with potential tonal content at blade-pass frequencies dependent on fan speed and design. Cooling towers would operate continuously during facility operation.

Water-Cooled and Air-Cooled Chillers. The 16 water-cooled chillers are rated at 80 dBA at 3 feet; the 28 air-cooled chillers are rated at 61 dBA at 33 feet. Chiller noise is primarily broadband compressor and fan noise. Water-cooled chillers are located indoors; air-cooled chillers are located outdoors and contribute to the combined operational noise level at receptor locations.

Transformers (Switchyard and Outdoor Distribution). The Project includes two 60/80/100 MVA, 115/34.6 kV oil-filled switchyard transformers (indicative sound level 67 dBA at 1 foot, pending final SCE design), four 36/48/60 MVA outdoor distribution transformers (77 dBA at 3 feet), and 36 smaller 7.5 MVA distribution transformers (67 dBA at 1 foot). Oil-filled transformers produce a characteristic continuous tone at 120 Hz and harmonics thereof, resulting from magnetostrictive vibration of the core laminations. This tonal characteristic can affect community perception at low absolute levels.

Other Outdoor Mechanical Equipment. Additional outdoor equipment includes various rooftop units (RTUs), dedicated outdoor air systems (DOAS), and switchgear. Sound levels range from 60

dBA to 85 dBA at reference distances of 3 to 10 feet, as summarized in Appendix G.1 (Appendix D).

The final tonal and frequency characteristics of installed equipment would be confirmed through manufacturer specifications at the procurement stage. If tonal components are identified that would meaningfully affect the community noise analysis, the noise evaluation would be updated accordingly, consistent with the Design-Change Trigger commitment described in Section 4.13.3.

On-Site Noise and Worker Impacts — Appendix B §(g)(4)(E)

Appendix B §(g)(4)(E) requires an estimate of Project noise levels within the Project Site boundary during both construction and operation, and an assessment of worker impacts due to those noise levels.

Construction Phase. During construction, on-site noise levels would be highest during earthwork and grading activities involving concurrent operation of multiple pieces of heavy equipment. Based on the equipment sound levels summarized in Appendix G.1 (Table IV), workers operating in close proximity to heavy equipment such as dozers, excavators, concrete saws, and pile drivers may be subject to noise levels that could exceed 85 dBA on an equivalent exposure basis.

Operational Phase. During facility operation, on-site noise would be generated primarily by the emergency generator yards, cooling towers, chillers, and associated mechanical equipment. Based on the manufacturer-supplied sound levels in Appendix G.1 (Appendix D), workers performing routine maintenance or testing activities in the immediate vicinity of operating generators or cooling towers may encounter elevated noise levels.

Worker Protection. Construction and operations workers are subject to occupational noise exposure requirements under California Code of Regulations, Title 8, §5097 (Cal/OSHA), which establishes a permissible exposure limit (PEL) of 90 dBA as an 8-hour time-weighted average (TWA) and requires implementation of a Hearing Conservation Program when noise exposures at or above 85 dBA TWA are anticipated. The Project would comply with all applicable Cal/OSHA occupational noise requirements, consistent with Kern County General Plan Noise Element Policy 2, which requires that noise level criteria applied to all categories of land uses be consistent with the recommendations of the California Division of Occupational Safety and Health (DOSH). The Applicant shall require all construction and operations contractors to implement a Hearing Conservation Program consistent with Title 8 §5097 where noise exposures warrant, provide appropriate hearing protection to workers at or above the applicable action level, and address occupational noise requirements in the Construction Health and Safety Program and Operations Health and Safety Program described in the Worker Safety section of this Application.

Transmission System and Switchyard Audible Noise — Appendix B §(g)(4)(F)

Appendix B §(g)(4)(F) requires a description of the audible noise from existing switchyards and overhead transmission lines that would be affected by the Project, and estimates of future audible noise levels from existing and proposed switchyards and transmission lines, calculated at the property boundary for switchyards and at the edge of the right-of-way for transmission lines.

The Project includes a proposed substation and subtransmission line interconnection to the Southern California Edison (SCE) Inyokern Substation located to the east of the Project Site (APN 084-010-48). The Project's electrical infrastructure includes two 60/80/100 MVA, 115/34.6 kV oil-filled switchyard transformers (indicative sound level 67 dBA at 1 foot, pending final SCE interconnection design requirements) and four 36/48/60 MVA outdoor distribution transformers (77 dBA at 3 feet), as identified in Appendix G.1 (Appendix D). The transformer noise levels were carried into the operational noise modeling summarized in Table 4.13-3 above.

The final specifications for the two large switchyard transformers are pending SCE's completion of the interconnection design. A dedicated Appendix B §(g)(4)(F) calculation of audible noise at the Project property boundary attributable to the switchyard transformers, and at the edge of the subtransmission line right-of-way attributable to the associated overhead transmission line, would be completed and submitted as a supplement to the Noise Analysis (Appendix G.1) upon finalization of the SCE interconnection design. This supplemental analysis would be provided prior to the close of the CEC staff data request process.

4.13.6 Cumulative Setting, Impacts and Mitigation Measures

The geographic scope for cumulative noise impacts is the Indian Wells Valley, consistent with the cumulative analysis framework described elsewhere in this Application. This geographic scope was selected because land within the region shares similar characteristics in terms of topography, existing ambient noise environment, and the types of development projects likely to contribute to cumulative noise conditions. As shown in Table AF-5 (Cumulative Projects List), there are approximately eleven projects proposed throughout the Indian Wells Valley in Kern County that could contribute to the cumulative noise environment during construction or operation.

Cumulative noise considers existing ambient conditions plus noise from the proposed Project combined with other noise sources in the area. Existing ambient noise conditions were documented through the long-term and short-term monitoring program described in Section 4.13.1, reflecting the existing noise environment at the time of measurement. The Noise Analysis concluded that the Project would not result in significant construction or operational noise impacts on a project-specific basis, and that construction noise would be temporary in nature. Other projects in the cumulative scenario would be subject to the same CEQA review requirements, applicable County noise standards, and FTA construction noise guidance criteria applicable to this Project.

Because the Project's construction and operational noise levels would not exceed applicable Kern County standards at any off-Site receptor and would not cause a measurable increase in ambient noise at sensitive receptors, the Project's incremental contribution to cumulative noise impacts would not be cumulatively considerable. The Project is consistent with Kern County General Plan Noise Element goals and policies governing noise-generating industrial development, as described in Section 4.13.2. The Project is also consistent with the goals and policies of the Inyokern Specific Plan applicable to this resource area, as described in Section 4.13.2.

Mitigation Measures: No mitigation measures are required.

Significance of Impacts: Less than significant.

4.14 POPULATION AND HOUSING

Introduction

This section of the Application describes the affected environment and regulatory setting for population and housing associated with the Project. This section also evaluates the potential impacts to population and housing associated with construction, operation, and maintenance of the Project and identifies mitigation measures that would reduce these impacts, where applicable.

The proposed Project is a 99-megawatt (MW) Tier III hyperscale data center and associated infrastructure on an approximately 50-acre site in the unincorporated community of Inyokern, Kern County. The data center would be approximately 238,000 square feet, single-story, and would operate on a 24/7 continuous basis. The Project's nonresidential character, industrial land use designation, and temporary construction workforce are central to the population and housing analysis presented in this section.

The proposed Project's potential population and housing impacts have been evaluated using relevant information from the Project Description, Site Plan (Appendix A.1), the Preliminary Economic, Socioeconomic, Environmental Justice, and Growth-Inducing Impact Analysis (Appendix J.2) ("the Socioeconomic Analysis," which also contains the Environmental Justice Analysis for this Project), the Kern County 2024-2031 Housing Element (May 2025) (the "Housing Element"), the Kern Council of Governments 2023-2031 Regional Housing Need Allocation Plan, and other published resources. The Socioeconomic Analysis was prepared to satisfy the requirements of California Energy Commission (CEC) Appendix B, Section (g)(7)(A) and (g)(7)(B). CEC SPPE Appendix B requirements for this section are addressed in Section 4.14.5 of this chapter.

CEC SPPE Appendix B — Section (g)(7) Applicability

California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(7) requires the following for the Socioeconomics resource area:

(g)(7) Socioeconomics. (A) A description of the socioeconomic circumstances of the vicinity and region affected by construction and operation of the project. Include: (i) The economic characteristics, including the economic base, fiscal resources, and a list of the applicable local agencies with taxing powers and their most recent and projected revenues; (ii) The social characteristics, including population and demographic and community trends; (iii) Existing and projected unemployment rates; (iv) Availability of skilled workers by occupation required for construction and operation of the project; (v) Availability of temporary and permanent housing and current vacancy rate; and (vi) Capacities, service standards, existing and expected use levels, and planned expansion of utilities (gas, water and waste) and public services, including fire protection, law enforcement, emergency response,

medical facilities, other assessment districts, school districts, parks and recreation facilities, libraries, and other public facilities. For projects outside metropolitan areas with a population of 500,000 or more, information for each school district shall include current enrollment and yearly expected enrollment by grade level groupings, excluding project-related changes, for the duration of the project construction schedule.

(g)(7)(B) A discussion of the socioeconomic impacts caused by the construction and operation of the project, including: (i) An estimate of the number of workers to be employed each month by occupation during construction, and for operations, an estimate of the number of permanent operations workers during a year; (ii) An estimate of the percentage of non-local workers who will relocate to the project area to work during the project construction and operation; (iii) An estimate of the potential population increase caused directly and indirectly by the project; (iv) The potential impact of population increase on housing during the construction and operations phases; (v) The potential impacts, including additional costs and ability to meet local service standards, on utilities and public services, including response times to hospitals and for police protection, fire protection, emergency services, parks and recreation facilities, libraries, and other public facilities, and information on schools; (vi) An estimate of applicable school impact fees; (vii) An estimate of the total construction payroll and separate estimates of the total operation payroll for permanent and short-term (contract) operations employees; (viii) An estimate of the expenditures for locally purchased materials; (ix) An estimate of the capital cost (plant and equipment) of the project; (x) An estimate of sales taxes generated during construction and separately during an operational year of the project; (xi) An estimate of property taxes generated during an operational year of the project; (xii) The expected direct, indirect, and induced income and employment effects due to construction and operation of the project; and (xiii) A discussion of impacts to environmental justice populations by technical areas and whether any impacts would disproportionately affect the environmental justice populations.

All Section (g)(7) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.14.1–4.14.4. The Appendix B supplemental disclosure is provided in Section 4.14.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.14-A, immediately preceding Section 4.14.4.

4.14.1 Environmental Setting

Regional Setting

Kern County is California’s third largest county in land area, encompassing 8,161 square miles. Located at the southern end of the Central Valley, Kern County serves as the gateway to Southern California, the San Joaquin Valley, and California’s High Desert. The county’s geography is diverse, containing mountainous areas, agricultural lands and desert.

Kern County was initially developed by settlers searching for gold and the county became known as the Golden Empire. In subsequent years, the county developed a large agricultural base, as well as significant energy production and resource extraction industries. More recently, the county's economy has diversified with distribution facilities, high-tech computer companies, manufacturing and tourism industries all having a large presence in the county.

Population

According to the U.S. Census Bureau, Kern County experienced a population growth of approximately 8 percent between 2010 and 2020, increasing from 839,631 to 909,235.

The California Employment Development Department reported that county's population grew to approximately 922,529 by 2024, increasing the demand for public services and associated employment. Between 2020 and 2030, it is estimated that the population will grow by 12.8 percent, to 1,025,700.

According to the Kern COG, the population of unincorporated Kern County is 319,362, while the population of incorporated cities is 598,311. Nearly 35 percent of the population lives in unincorporated Kern County, while slightly more than 65 percent live in incorporated areas. Kern County has 11 incorporated cities: Arvin, Bakersfield, California City, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco.

Household Type

The U.S. Census Bureau defines a "household" as all the people living in a housing unit. This could include a single family, related family members living together, unrelated people living together, or one person living alone. Household characteristics should be considered when determining housing needs. Table 4.14-4 offers a broad view of household characteristics in Kern County.

There are 174,504 households in incorporated cities and 100,680 households in unincorporated areas, for a total of 275,184 households in Kern County. The average household size is nearly identical for incorporated and unincorporated areas: 3.27 and 3.30, respectively.

Table 4.14-4 - Household Characteristics, Kern County, 2021

	Total	Incorporated	Unincorporated
Total Population	917,673	598,311	319,362

Group Quarters Population	29,956	27,682	2,274
Population in Households	875,688	570,629	305,059
Households	275,184	174,504	100,680
Average Household Size	3.19	3.27	3.03

Note: Average Household Size for Incorporated and Unincorporated Areas calculated by averaging individual places. Source: U.S. Census Bureau, ACS 2017-2021 Tables B26001, B11002, B25008

Housing

Housing in incorporated Kern County is mostly single-family detached units (72.5 percent) followed by multi-family with five or more units (12 percent), according to the U.S. Census 2017-2021 ACS 5-Year Estimates. In unincorporated areas, single-family detached units comprise 73.2 percent of all housing, and mobile homes make up 13.1 percent.

The median home sales price in May 2023 in various Kern County metro areas was between \$225,000 and \$382,500. The U.S. Census 2017-2021 5-Year Estimates found that the vacancy rate for incorporated Kern County was 1.9 percent while it was 4.2 percent in unincorporated areas.

On August 31, 2021, Kern COG received its 6th cycle regional housing need assessment determination from HCD (Appendix B to the Kern COG RHNA Plan). HCD is required to determine Kern COG's existing and projecting housing need pursuant to State housing law (Government Code Section 65584, et. seq.). The total number of housing units for the region are further broken down by HCD into four income categories:

- VERY LOW INCOME—Four-person household does not exceed 50 percent of the median family income of the county.
- LOW INCOME—Four-person household with income between 51 percent and 80 percent of the county median family income.
- MODERATE INCOME—Four-person household with income between 81 percent and 120 percent of the county median family income.
- ABOVE MODERATE INCOME—Four-person household with income 121 percent or more of the county median family income.

The below Table 4.14-5, provides the Regional Housing Needs Determination by Income Category that the California Department of Housing and Community Development (HCD) provided to Kern COG.

Table 4.14-5 - Regional Housing Needs Determination By Income Category

Income Category	Percent	Housing Unit Need
Very Low*	25.4%	14,658
Low	16.2%	9,328
Moderate	16.1%	9,299
Above Moderate	42.3%	24,365
Total	100.0%	57,650

* Extremely Low 13.1% (included within Very Low category) Source: Kern Council of Governments 2023-2031 Regional Housing Need Allocation Plan (Table 2)

Age Characteristics

Nearly 60 percent of householders are homeowners; about 41 percent are renters. The largest group of homeowners are between the ages of 45 and 54 years old, making up 19.2 percent of homeowners. This group was followed by people age 35 to 44 years, at 17.9 percent, and homeowners age 65 to 74 years old, at 16.5 percent.

The largest group of householders who rent their home are people between the ages of 25 and 34 years old, making up 27.1 percent of all renters. This group is closely followed by people between the ages of 35 and 44 years old, who make up 23.2 percent of renters. The next largest group is people ages 45 to 54 years old, who comprise 16.7 percent of renters.

Employment

In April 2023, The California Employment Development Department reported that Kern County had 362,900 employed residents and the unemployment rate was 8.3 percent. The unemployment rate in Kern County was 9.7% in February and March 2024, indicating a higher level of unemployment compared to late 2023. By August 2024, the rate was reported at 8.5%, with 36,000 unemployed individuals. The county's unemployment rate fluctuates, rising in the spring and summer, partly due to seasonal patterns in farming and education. Kern County's unemployment rates in 2024 were frequently nearly 5% higher than the national average.

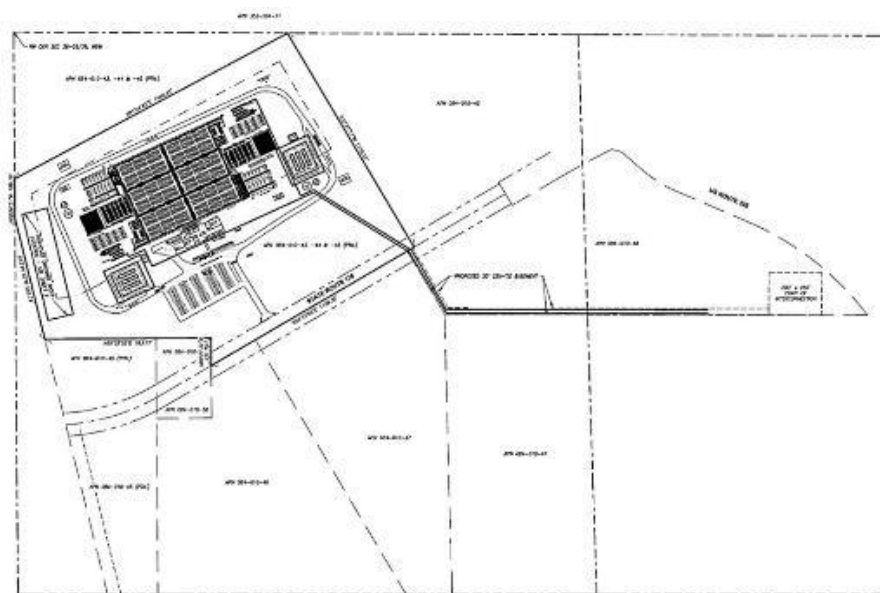
The three largest industries by number of employed are health care and social assistance (13.2%), forestry, fishing, and related activities (13%), and retail trade (12%). Combined, these industries make up 38.3 percent of all employed residents in Kern County.

Government and government enterprises in Kern County also employ many residents in Kern County. In 2021 the majority—77.8%—of residents employed by government and government enterprises work for state and local governments. Of those employees, 80 percent work for local government.

Local Setting

As depicted in Figure 4.14-1, the Housing Element divides Kern County into 12 subareas as defined by the Kern Council of Governments (COG) and annotated for reference to the Kern County General Plan Regions of Valley, Mountain and Desert. The Project Site is located within the COG's Greater Ridgecrest – Desert subarea which encompasses the northeastern corner of Kern County and is termed Eastern Kern. To the north is Inyo County and to the south is Greater California City. Greater Lake Isabella is on the west and San Bernardino County is on the east. Naval Air Weapons Station (NAWS) China Lake provides many of the employment opportunities here, either directly or indirectly. There are limited agricultural developments here due to water limitations, but there is some alfalfa farming. People in this subarea are also employed in San Bernardino County.

Figure 4.14-1 Kern County Council of Governments



Planning Regions

The Project is located in the unincorporated community of Inyokern which is a small rural census-designated place (CDP). The City of Ridgecrest and broader Indian Wells Valley provide a greater concentration of housing, lodging, retail, medical, and community services for the surrounding area. Access to higher-order services, employment opportunities, and medical facilities is primarily provided through Ridgecrest, located approximately 5.5 miles east of the Project Site.

The Project Site is approximately 50 acres and does not contain residential uses or existing housing. The surrounding area is characterized by transportation infrastructure, commercial and industrial uses, utility-related facilities, and open desert lands. Existing development in the Project vicinity includes a wastewater treatment plant, rural access roads, scattered rural residences, a gasoline station and convenience store, a retail hardware store and storage yard, a mobile home and RV park, the Inyokern Airport, the RB Solar Project, and a 4.2-acre borrow pit. Open space and undeveloped vacant land are prevalent in the vicinity.

The Project Site is within the Inyokern Specific Plan with a map code designation of 7.2/2.5 (Service Industrial/Flood Hazard), is classified within the M-2 PD (Medium Industrial – Precise Development Combining District) zone district under Chapter 19.38 of the Kern County Zoning Ordinance, and has been determined to comply with Kern County General Plan, land use, zoning, and development requirements for industrial use.

Population and Housing Context

Population

Based on American Community Survey (ACS) 2023 five-year estimates, as presented in the Socioeconomic Analysis (Section 3.4), the Inyokern CDP is characterized by a small, rural population with limited housing stock. Key baseline demographic and housing indicators are summarized in Table 4.14-1 below.

Table 4.14-1 - Inyokern CDP and Kern County Baseline Demographic and Housing Indicators

Indicator	Inyokern CDP	Kern County	United States	Source
Total Population	~958	909,235	—	2020 Decennial Census; ACS 2023
Total Households	~407	—	—	ACS 2023 5-Year Estimates
Total Housing Units	~496	—	—	ACS 2023 5-Year Estimates

Vacancy Rate (planning-level)	~18%	—	—	ACS 2023 5-Year Estimates
Median Household Income	\$68,373	\$70,997	\$81,604	U.S. Census Bureau, 2024
Population Below Poverty Level	~17.5%	18%	12.1%	ACS 2023 5-Year Estimates
Unemployment Rate	12.4%	8.9%	2.9%	U.S. Census Bureau, 2021; 2024
White	67.5%	—	—	U.S. Census Bureau, 2021
Hispanic or Latino	16.0%	—	—	U.S. Census Bureau, 2021
Two or More Races	10.2%	—	—	U.S. Census Bureau, 2021
Age: 0–19 years	20.5%	—	—	U.S. Census Bureau, 2024
Age: 20–64 years	67.8%	—	—	U.S. Census Bureau, 2024
Age: 65 and over	11.5%	—	—	U.S. Census Bureau, 2024

Source: Socioeconomic Analysis and Environmental Justice Analysis (Appendix J.2, Section 3.4).

Employment

The unemployment rate in Inyokern (12.4%) is elevated relative to Kern County (8.9%) and the United States (2.9%) (U.S. Census Bureau, 2024; Socioeconomic Analysis, Table SEJ-10). The poverty rate (22.5%) is also above both county and national levels.

The workforce size of Inyokern is approximately 311 working residents of a total population of 912 in 2024. From 2023 to 2024, employment in Inyokern declined by 6.33%. The workforce is heavily reliant on private companies (85.8%), with significant employment in retail trade, construction, and food services.

Because the Project Site and surrounding areas are nonresidential any temporary and full-time employment demand associated with Project workers would be expected to rely primarily on Ridgecrest-area and broader regional employment resources.

Housing

According to Data USA, in 2024 the housing landscape in Inyokern, CA, is characterized by a mix of rural, detached, and non-traditional housing, serving as a lower-cost alternative to nearby Ridgecrest:

- **Detached Single-Family Homes:** Make up approximately 52% of the housing units in Inyokern. These often include ranch-style homes on larger, multi-acre lots, particularly in the northern parts of the community.
- **Mobile/Manufactured Homes:** A significant portion of the housing stock (approx. 38.7%) consists of mobile or manufactured homes, often found on grid-style blocks near the town center.
- **Bungalows:** Smaller bungalow-style homes are common in the central downtown area.
- **Rental Options:** While primarily owner-occupied (approx. 73.2% homeownership rate), rental options include detached houses and some smaller multi-family units, with rent in the area often for 3-bedroom, 1-bath houses.
- **Value:** The median property value in Inyokern saw a decrease, moving from \$311,700 in 2023 to roughly \$292,900 in 2024.
- **Setting:** Properties frequently feature, or are adjacent to, acreage, horse property, and detached garages/workshops.
- **Neighborhoods:** Specific areas include downtown (near W Inyokern Rd), China Lake Acres, and rural spots with larger plots of land.

Housing Characteristics

Based on DATA USA 2024 data, the housing in Inyokern, CA, is characterized by:

- **Median Property Value:** \$292,900, which experienced a decrease from \$311,700 in 2023.
- **Homeownership Rate:** Approximately 73.2%, which is significantly higher than the national average of 65.2%.
- **Housing Type:** The area offers a suburban-rural mix, with many residents owning their homes.

- **Resident Age Structure:** The area has a high percentage of residents over 65 (28.2%) compared to the national average (19.1%), suggesting a demand for older-adult-friendly housing, while 19.6% are under 18.
- **Median Age of Residents:** The median age of the population is approximately 55.9 years.
- **Market Trends:** The homeownership rate in the broader California region remains challenged for younger buyers, with many residents in Kern County, where Inyokern is located, acting as a retirement or lower-cost, high-ownership area, even as the median home value in Inyokern decreased in 2024.

Housing Availability

The Socioeconomic Analysis (Section 3.7) identifies approximately 496 housing units in Inyokern, with a planning-level vacancy estimate of approximately 18 percent based on ACS 2023 five-year estimates. While this suggests some available housing stock, the small absolute number of available units limits the community's practical capacity to absorb temporary worker demand. Even at moderate vacancy rates, only a limited number of units are realistically available to house short-term construction workers. The Project Site does not contain housing and would not remove existing residential units.

Because the Project Site and surrounding areas are nonresidential and the local housing stock in Inyokern is limited in absolute terms, any temporary lodging demand associated with Project workers would be expected to rely primarily on Ridgecrest-area and broader regional housing and lodging resources rather than long-term household relocation within Inyokern.

Socioeconomic Conditions

As described in the Socioeconomic Analysis and Environmental Justice Analysis (Appendix J.2, Section 3.4), the Inyokern CDP is a small, rural community within the broader Indian Wells Valley. The demographic profile of Inyokern — including the elevated poverty and unemployment rates shown in Table 4.14-1 — reflects long-standing socioeconomic conditions common to rural desert communities in eastern Kern County. Given the small local population base, temporary workforce activity associated with large construction projects is typically accommodated through regional commuting and short-term lodging rather than permanent household relocation.

Community Health Indicators

Community health indicators provide additional context for the Project's potential effects on the local population. As assessed by CalEnviroScreen 4.0 and documented in the Environmental Justice Analysis (Appendix J.2, Section 4.14.19; Figure 4.14-2 — CalEnviroScreen Mapping), the Inyokern census tract has an asthma emergency department visit rate of 71 per 10,000 people (79th statewide percentile) and a cardiovascular disease emergency department visit rate of 23.70 per 10,000 people (96th statewide percentile). Despite these health indicators, the Inyokern CDP has a CalEnviroScreen 4.0 overall percentile score of 66 — below the 75th percentile threshold for

disadvantaged community designation — and is not identified as a disadvantaged community under SB 535 criteria (OEHHA, 2022; 2026).

Utilities and Public Services

Utilities and public services serving the Project are described in detail in the Socioeconomic Analysis (Section 3.8 and Table SEJ-A2).

Water supply and wastewater services are to be provided by the Inyokern Community Services District (Inyokern CSD) following LAFCo annexation, as identified in Table 1-3 of this Application. The Inyokern CSD has provided will-serve documentation confirming its ability to provide sufficient water for construction and facility operations (Section 1.4.5). The Inyokern CSD has also provided a will-serve letter confirming wastewater service capacity for the Project, filed as a Project commitment consistent with SPPE requirements.

Solid waste collection services are provided through Kern County franchise haulers serving unincorporated areas, with disposal at permitted regional facilities.

Fire protection is provided by the Kern County Fire Department (KCFD) — Station 73, physically located in Inyokern at 6919 Monache Mountain Ave., with single-digit-minute travel times to the Project Site (planning-level proxy; Socioeconomic Analysis, Table SEJ-C1). The Project would be subject to the Kern County Fire Code (Chapter 17.32 of the Kern County Municipal Code) and the Kern County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP). Law enforcement is provided by the Kern County Sheriff's Office — Ridgecrest Substation (128 E. Coso Ave., Ridgecrest), with an approximate travel time of 14 minutes from the substation to the Project Site (planning-level proxy; Socioeconomic Analysis, Table SEJ-C1).

Ambulance transport is provided by Liberty Ambulance with Ridgecrest Regional Hospital (1081 N. China Lake Blvd., Ridgecrest) serving as the primary emergency department, ~14 minutes from the Project Site (Socioeconomic Analysis, Table SEJ-C1).

Because the Project does not include residential development and the permanent operations workforce is limited to approximately 30 to 60 employees, the Project would not generate measurable new demand on parks, recreational facilities, or library services; no impacts to these facilities are anticipated. No expansion of KCFD Station 73, the KCSO Ridgecrest Substation, Liberty Ambulance service, Ridgecrest Regional Hospital emergency department, Sierra Sands Unified School District facilities, or Kern County solid waste franchise infrastructure is anticipated or required as a result of the Project.

School District: Enrollment and Projected Enrollment

As required by Appendix B for projects outside metropolitan areas with a population of 500,000 or more, the Socioeconomic Analysis (Section 3.9 and Table SEJ-A3) provides baseline and projected enrollment by grade grouping for Sierra Sands Unified School District (SSUSD) for the full 48-month construction schedule. Enrollment projections for SY 2024-25 through SY 2028-29 reflect baseline district trends independent of the Project. Because the Project does not include residential development, no project-related enrollment increases are anticipated.

Table 4.14-2 - SSUSD Enrollment Baseline and Projected Enrollment by Grade Grouping (Construction Duration, SY 2024-25 through SY 2028-29)

School District	School Year	K-5	6-8	9-12	Total Enrollment	Project-Related Change
Sierra Sands USD	SY 2024–2025	1,818	987	1,400	4,205	None anticipated
Sierra Sands USD	SY 2025–2026	1,811	996	1,405	4,212	None anticipated
Sierra Sands USD	SY 2026–2027	1,802	1,027	1,409	4,238	None anticipated
Sierra Sands USD	SY 2027–2028	1,821	1,052	1,367	4,240	None anticipated
Sierra Sands USD	SY 2028–2029	1,828	1,034	1,394	4,256	None anticipated

Source: Socioeconomic Analysis, Table SEJ-A3 (SSUSD Enrollment Projections 2024).

4.14.2 Regulatory Setting

This section identifies the federal, state, and local laws, ordinances, regulations, and standards (LORS) applicable to the population and housing resource area. The Project is a nonresidential industrial facility located on M-2 PD (Medium Industrial – Precise Development Combining District) designated land and does not involve residential construction, housing transactions, or residential displacement. Nonetheless, the full housing regulatory framework applicable to the Project’s vicinity is disclosed below in its entirety, consistent with project counsel’s determination of applicable LORS and to provide complete regulatory context for the population, housing, and socioeconomic analysis presented in this chapter. Regulations that directly govern the Project’s potential population and housing effects are identified in the impact analysis in Section 4.14.4 and the Appendix B supplemental disclosure in Section 4.14.5.

Federal

The Fair Housing Act (FHA) of 1968

The FHA is the primary federal statute governing housing policy. The FHA prohibits discrimination in renting, buying, financing, or advertising housing based on race, color, national origin, religion, sex, familial status, or disability. It requires equal housing opportunities and reasonable accommodations, applying to landlords, lenders, and real estate agents. The FHA prohibits discrimination based on seven protected classes: race, color, religion, sex, disability, familial status (including children under 18), and national origin. It is illegal to refuse to sell/rent, set different terms, falsely claim housing is unavailable, or use discriminatory advertising. Housing providers must make reasonable accommodations and modifications for people with disabilities, such as allowing service animals or accessible unit changes. The FHA prohibits "redlining" and discrimination in residential real estate loans, insurance, and appraisal. The Department of Housing and Urban Development (HUD) enforces the FHA, allowing victims to file complaints, which are investigated for violations.

USDA Rural Housing Programs

USDA Rural Housing programs, managed by the federal Rural Housing, provide affordable homeownership opportunities, repairs, and rental assistance in rural areas. Key options include 100% financing loans (direct and guaranteed) for low-to-moderate income households, home repair loans/grants for seniors, and multi-family housing development. Key USDA Housing Programs include:

- **Single Family Housing Guaranteed Loan Program:** Offers 30-year fixed-rate mortgages with no down payment for moderate-income borrowers, typically through private lenders.
- **Single Family Housing Direct Home Loans (Section 502):** Provides financing directly from the USDA with no down payment for low/very-low-income applicants, often with subsidies to make payments affordable.
- **Home Repair Loans and Grants (Section 504):** Helps low-income homeowners (grants for age 62+) repair, improve, or modernize their homes, or remove health/safety hazards.
- **Multi-Family Housing Programs:** Loans for developing rental units and farm labor housing.

Eligibility and Requirements

- **Location:** Property must be in an eligible rural area, generally with a population under 35,000.
- **Income:** For direct loans, income must be low or very low. For guaranteed loans, income can be up to 115% of the median household income.

- **Occupancy:** The home must be the primary residence.
- **Loan Limits:** Based on area income and specific program guidelines.

State

Note on Federal Program Applicability: The federal programs described above (FHA and USDA Rural Housing Programs) do not directly regulate the proposed Project, which involves no residential construction, housing sales or rentals, or mortgage lending. These programs are disclosed because they define the federal housing policy environment applicable to the Inyokern community and inform the assessment of housing availability and affordability conditions in the Project vicinity. Their inclusion reflects project counsel's determination that complete LORS disclosure is appropriate for this resource area.

California Fair Employment and Housing Act (FEHA)

The FEHA provides even broader protection than federal law, covering additional characteristics including sexual orientation, gender identity, age, marital status, source of income, and ancestry. The California Civil Rights Department (CRD) is responsible for enforcing state fair housing laws that make it illegal to discriminate against or harass someone because of a protected characteristic, such as their gender, race, national origin, sexual orientation, gender identity, or religion. (For a complete list of protected characteristics, see the section below titled "Protected Characteristics"). The law also requires reasonable accommodations for disabilities and prohibits retaliation against someone for exercising their rights. The law applies to landlords, tenant screening companies, property management companies, real estate agents, home sellers, builders, mortgage lenders, housing authorities, and others. The law applies to all aspects of housing and housing-related services, such as renting, leasing, sales, new construction, mortgage lending, insurance, municipal services, shelters, advertising, and restrictive covenants. Additionally, it is unlawful for cities, counties, or any local government agency to make zoning, land-use decisions, or policies that discriminate based on a protected characteristic.

California rural housing laws

The California Department of Housing and Community Development (HCD) facilitates low-density, owner-built housing, address farmworker housing shortages, and navigate complex, sometimes conflicting, local zoning regulations. Key aspects include special building standards, state-funded repair grants for low-income homeowners, and new laws easing ADU development on rural plots. Key Rural Housing Regulations include:

- **Limited-Density Owner-Built Structures (CCR Title 25, Art. 8):** Rural areas often allow more flexible, owner-built housing (such as cabins or smaller homes) designed for a single family, provided they meet specific health and safety standards.
- **Farmworker Housing:** Recent legislation, including AB 1654 mandates that a portion of state tax credits are set aside to build, rehabilitate, or operate farmworker housing in agricultural communities.

- **Rural ADU (Accessory Dwelling Unit) Laws:** As of January 1, 2026, new laws allow for multiple ADUs on single-family properties, expanding rental potential without strict owner-occupancy rules.
- **Disaster Relief (SB 610/2026):** Specific regulations prevent landlords from charging rent for units rendered uninhabitable by natural disasters, like wildfires or floods, common in rural areas.
- **Infrastructure Challenges:** While the state encourages, it often leaves specific, higher-density zoning to local jurisdictions, which can lead to limited housing options (the "housing element" gap).
- **Section 504 Home Repair Program:** Provides loans and grants to low-income homeowners to repair or modernize homes, often used in rural communities.
- **Code Exemptions:** Some agricultural housing may be exempt from strict environmental reviews (CEQA) if they meet specific, limited criteria for small, infill, or affordable projects.

2024 Rural Housing & Land Development Regulations

- **SB 4(Religious/Educational Land):** Allows churches, religious institutions, and nonprofit colleges to build affordable housing by-right on their land, even in rural areas, if owned before Jan 1, 2024.
- **AB 2243 (Commercial Zones/Rural Areas):** Expands on 2022's AB 2011 to streamline development in commercial zones (including shopping centers/malls), allowing residential projects without requiring a zoning change or conditional use permit, including in non-urban areas.
- **SB 684 (Subdivision of Small Lots):** Makes it easier to subdivide, allowing developers to break down large parcels into smaller ones for 10 or more homes in multi-family or mixed-use zones, simplifying the process for smaller rural development.
- **AB 1033 (ADU Condos):** Allows homeowners to sell Accessory Dwelling Units (ADUs/granny flats) as separate condominiums, increasing potential in rural, single-family residential areas.

California Environmental Quality Act (CEQA Guidelines, Title 14, CCR Section 15000 et seq.)

Appendix G of the CEQA Guidelines (Title 14, California Code of Regulations, Section 15000 et seq.) includes population and housing questions that focus on whether a project would: (1) induce substantial unplanned population growth in an area, either directly or indirectly; or (2) displace substantial numbers of existing people or housing, thereby necessitating the construction of replacement housing elsewhere. These questions provide the significance framework for the

impact analysis in Section 4.14.4 below. Under Public Resources Code Section 21083, a project may result in a significant effect if it induces population growth substantially beyond what is forecast in regional or local plans.

California Housing Element Law (Government Code Section 65580 et seq.)

The California Housing Element Law (Government Code Section 65580 et seq.) requires every city and county to adopt a Housing Element as part of its General Plan (Government Code Section 65302(c)). The Housing Element must assess existing and projected housing needs for all income levels and identify sites adequate to meet those needs.

The Housing Element of the General Plan has two purposes: to provide an assessment of both current and future housing needs and constraints in meeting these needs and to provide a strategy that establishes housing goals, policies, and programs.

Additionally, the state is required to allocate the region's share of the statewide housing need to COGs based on Department of Finance population projections and regional population forecasts. Kern COG serves as the region's COG. The housing element law requires the COG to develop a Regional Housing Need Assessment (RHNA) Plan. The plan describes the region's allocation method and the actual allocation of housing need to the cities and counties within the region. This document serves the Kern Region's RHNA plan.

According to state housing law (Government Code Section 65584(d)), the RHNA Plan is to promote the following objectives:

- Increasing the housing supply and mix of housing types, tenure, and affordability.
- Promoting infill development and socioeconomic equity, protecting environmental and agricultural resources, and encouraging efficient development patterns.
- Promoting an improved intraregional relationship between jobs and housing.
- Promoting an improved intraregional relationship between jobs and housing
- Balancing disproportionate household income distributions.
- Affirmatively furthering fair housing.

California Housing Element & Enforcement

- **AB 1886 (Builder's Remedy):** Strengthens state oversight, allowing the "Builder's Remedy" to be used sooner when the California Department of Housing and Community Development (HCD) finds a city/county has not approved enough housing (the "non-compliant" housing element).
- **SB 1037 (Enforcement):** Sets new penalties for cities/counties that fail to update housing elements or fail to approve ministerial housing developments.

SB 375: Integrating Land Use, Housing, And Transportation Planning

In 2008, Senate Bill 375 (SB 375) was passed to support the State’s climate action goals that were identified in Assembly Bill 32, to reduce greenhouse gas (GHG) emissions through coordinated land use and transportation planning. SB 375 mandates each of the metropolitan planning organizations (MPOs), Kern COG, to prepare a Sustainable Communities Strategy (SCS) as part of its Regional Transportation Plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG reduction targets. Because SB 375 requires better coordination between transportation planning with land use and housing planning, the RHNA process is now integrated to the adoption of every two cycles of the regional RTP/SCS. As a result, RHNA Plans must be adopted every eight years, following the adoption of the update of the RTP/SCS.

California Environmental Justice Policy (Government Code Section 65040.12)

California Government Code Section 65040.12 defines Environmental Justice as “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” This policy framework informs the evaluation of whether Project impacts would disproportionately affect minority or low-income populations.

SB 535 Disadvantaged Communities

SB 535 tasked CalEPA with identifying disadvantaged communities for purposes of targeting investments to improve public health, quality of life, and economic opportunity. CalEPA’s designation includes census tracts meeting one or more criteria, including: (1) highest 25 percent of CalEnviroScreen 4.0 overall scores; (2) highest 5 percent cumulative pollution burden where overall scores are unavailable; (3) tracts identified as disadvantaged in the 2017 designation; and (4) lands under the control of federally recognized Tribes.

California Energy Commission SPPE Appendix B — Section (g)(7)

Appendix B, Section (g)(7) of the CEC SPPE information requirements requires a description of the socioeconomic circumstances of the vicinity and region and a discussion of socioeconomic impacts. The full scope of sub-requirements is set forth in the Applicability Box at the beginning of this chapter. All (g)(7) disclosures are provided in Section 4.14.5.

Local

Kern County General Plan — Housing Element

The Project is located in unincorporated Kern County and is subject to the Kern County General Plan. The General Plan’s Housing Element, adopted pursuant to Government Code Section 65302(c), establishes goals and policies to address housing availability, affordability, and equity throughout Kern County. The following goals and policies from the Housing Element are applicable to the Project:

Chapter 4 — Housing Element, Goals and Policies

- Goal 1:** Provide adequate sites for housing to meet the diverse needs of all economic segments of the community.
- Goal 2:** Promote equal housing opportunity for all residents of the County.
- Policy 1:** The County shall ensure that non-residential development projects do not remove or displace existing housing stock or residents.
- Policy 2:** The County shall encourage housing to be provided for all income levels throughout the County.

Kern County Zoning Ordinance

Chapter 19.38 of the Kern County Zoning Ordinance establishes development standards for the M-2 PD (Medium Industrial – Precise Development Combining District) zone district, within which the Project Site is located. The M-2 PD district permits industrial uses including data centers and does not include residential uses. The Project has been determined to comply with applicable development standards for the M-2 PD zone district.

Inyokern Specific Plan

The entire Project is subject to the provisions of the Inyokern Specific Plan. The Inyokern Specific Plan contains goals, policies, and standards compatible with those in the Kern County General Plan but tailored to the specific needs of the Inyokern area. The applicable goals, policies, and implementation measures of the Inyokern Specific Plan are reproduced in full below at the direction of project counsel to ensure complete LORS disclosure consistent with CEC Appendix B requirements.

The Project site is designated M-2 PD (Medium Industrial – Precise Development Combining District) with a map code of 7.2/2.5 (Service Industrial/Flood Hazard). The following policies from the Inyokern Specific Plan are applicable to the Project:

Chapter 1: Land Use, Open Space, and Conservation Element; Physical Constraints

Goals To promote a safe and healthful living environment, reduce the potential for property damage and injury and minimize economic and social diseconomies in general by requiring development standards which adequately mitigate the physical constraints of noise and flood hazard.

Policies

- Zoning and other land use controls will be used to regulate, and prohibit, if necessary, future development when physical hazards exist.
- Development may occur on lands within flood hazard areas, other than established designated floodways, if measures are incorporated to ensure that it

will not be hazardous, increase flood depths or velocities, or cause water quality to deteriorate.

- Siting and orientation of residential development shall be encouraged in such a manner in order to reduce exposure to excessive noise levels generated by the major transportation routes, including railroads. Mitigation measures will be required where significant impacts on sensitive uses are identified.
- Kern County building, health, and fire codes and standards shall be strictly enforced to minimize the possibility of hazards relevant to certain physical constraints.
- The County will consider designation of flood hazard areas such as identified drainage courses or low lying areas as open space for passive recreation such as hiking trails.

Implementation Measures

- Site development shall be accomplished in compliance with the Kern County Flood Damage Prevention Ordinance. Development standards and prohibitions shall be the same as in that ordinance.
- Permanent structures within the secondary floodplain areas shall comply with the Flood Damage Prevention Ordinance.
- Proposed residential development at urban densities in areas where the ambient noise levels exceed 65 dB(A) (L_{dn}) shall include an acoustical report and shall comply with any measures therein as part of any subdivision or building permit approval.
- All structural development must conform to the Uniform Building Code, as administered by Kern County, to provide an adequate level of protection from earthquake damage.
- Areas subject to flooding shall be zoned accordingly with the appropriate flood hazard zone district.
- Land identified as approach zones or clear zones in the Inyokern Airport Master Plan shall be developed in accordance with the H (Airport Approach Height Combining) District of the Kern County Zoning Ordinance.
- Development projects shall demonstrate a high degree of compatibility with any threatened or endangered species habitat they may affect.
- Kern County's Noise Element should be revised to include new noise contours for the Inyokern Specific Plan area which will be generated as part of the Inyokern Airport Master Plan.
- Development of flood hazard areas as open space for recreation shall conform to Kern County Flood Hazard Ordinances. Permanent structures should be minimized or be elevated and/or flood protected according to Implementation Policy 2.
- Development of flood hazard areas as open space for recreation shall conform to the Kern County Flood Damage Prevention Ordinance and the Kern County Zoning Ordinance. Permanent structures should be minimized

or be elevated and/or flood protected in accordance with Implementation Measure 1.

Chapter 1.2 Public Facilities

Goals To provide adequate public services and facilities to meet current and projected community needs.

Policies

All new development shall be required to pay its proportional share of the costs of local infrastructure improvements, such as streets, sewers, water lines, and park development.

- Development shall include provisions to reduce the physical and fiscal impacts on the Sierra Sands Unified School District. Developers may be required to contribute funds or dedicate land to the District for school use.
- New residential development at or exceeding two dwelling units per gross acre will be required to connect to the Inyokern CSD water and sewer systems. Development within the Specific Plan shall be serviced by an adequate method of sewage treatment and effluent disposal. All such systems shall meet the requirements of the Kern County Environmental Health Services Department and, if applicable, other responsible State and County agencies.
- New industrial and commercial development shall be required to connect to the Inyokern Community Services District service systems, or shall provide sewage disposal in accordance with requirements of the California Regional Water Quality Control Board, Lahontan District, and the Kern County Environmental Health Services Department. Should new development occur outside the community services district boundaries, but inside the Specific Plan boundaries, annexation to the community services district shall be required unless the development otherwise meets the requirements of the Lahontan District and the Kern County Environmental Health Services Department.
- New development will be required to demonstrate the availability of adequate fire protection and suppression facilities.
- The County will encourage the preservation and enhancement of Inyokern Airport.

Implementation

- The County shall consult with the Sierra Sands Unified School District and the Inyokern CSD prior to the approval of any zone change, conditional use permit, final map subdivision, or parcel map. The concerns of the districts shall be included in the decision-making process.
- Appropriate zoning shall be implemented to restrict intense development in the vicinity of the Inyokern Airport in accordance with the policies of this Plan.
- Plans for adequate water and sewer systems for development projects shall be completed and approved in coordination with the Inyokern CSD, the Kern County Environmental Health Services Department and Kern County Fire Department prior to occupancy.
- Drainage plans shall conform to County Standards and to applicable requirements of the Kern County Department of Planning and Development Services.

Chapter 1.5 Industrial

Goals

- To provide adequate industrial land to serve the immediate area.
- To balance industrial and residential use so that residences are not adversely affected.
- To promote economic strength without detriment to environmental quality.
- Service Industrial (Map Code 7.2)

This designation is for commercial or industrial activities which involve outdoor storage or the use of heavy equipment. These industries can be visually obtrusive and are not generally suited for locations next to residential uses. Typical permitted land uses include auto and truck parking, welding, automobile body and painting shop, freighting or trucking yards, and lumber yard. Primary land use zones include M-2 (Medium Industrial) and M-1 (Light Industrial). All commercially zoned property is compatible with this category.

Policies

- Service industrial uses should not be located adjacent to residential development except as approved through the PD (Precise Development) process. The "Light Industrial" designation can act as a buffer between service industrial and residential uses. Industrial and residential sectors must be kept separate.
- Industrial development must demonstrate the ability to provide adequate water, sewer and other public services.

- Future industrial designations will not be approved unless it is shown that existing industrial land cannot meet the level of demand.
- New development should be encouraged to locate on vacant industrial land.
- Industrial development shall be encouraged on land south of the Inyokern Airport to minimize the potential noise and safety conflicts which may arise over Airport operation and expansion.
- Industrial development within floodplain areas shall conform to the requirements of the Kern County Flood Hazard Ordinances.
- Direct development away from sensitive biological resource areas unless effective mitigation can be implemented.
- Protect from development those areas of potential archaeological significance.

Implementation

- The County may require PD (Precise Development) overlay zoning for all industrially designated land within the Plan boundaries.
- The County shall require industrial developments and uses to meet the Special Development Standards as set forth in the Kern County Zoning Ordinance.
- Utility service to all new development shall be located underground.
- All new industrial subdivisions and, where applicable, PD (Precise Development) plans shall include provisions for standard street access, alleys where necessary, and sewer and water connections to the Inyokern CSD.
- All new industrial use shall meet the requirements of the Kern County Fire Department for fire flows, hydrants, access, and sprinklers.
- Any discretionary industrial project that disturbs property not previously developed/disturbed or is not substantially surrounded by urban density development, as determined by the Director of the Kern County Department of Planning and Development Services, shall require submittal of a biological survey for plants and animals as part of the application/permit process; said survey shall be completed in accordance with the most current guidelines prepared by the U.S. Fish and Wildlife Service and/or the State Department of Fish and Game. Any submittal shall also include mitigation measures satisfactory to the requirements of said agencies and the Kern County Department of Planning and Development Services.
- Any discretionary industrial development project that substantially disturbs property not previously developed or is not substantially surrounded by urban density development as determined by the Director of the Kern County Department of Planning and Development Services shall require submittal of an archaeological survey or a clearance as part of the application/permit process; said survey shall be completed in accordance with any guidelines supplied by the California Archaeological Inventory at California State University at Bakersfield. Any submittal shall also include

mitigation measures satisfactory to the requirements of said inventory and the Kern County Department of Planning and Development Services.

Chapter 3 Housing Element

Goals To provide an adequate supply of sound, affordable housing in a safe and satisfying environment for residents and others who wish to live in the community of Inyokern.

Policies

- The County will investigate various assistance programs relating to the rehabilitation of substandard residential properties.
- The policies of the Kern County Housing Element are incorporated by reference.
- Use of density bonus provisions within both the Kern County General Plan and Zoning Ordinance and the California Government Code will be promoted as a means of providing new housing to a variety of income levels.

Implementation

- The implementation measures of the Kern County Housing Element are incorporated by reference.
- Residential development standards are listed under Chapter 1 (1. 3 Residential).

All policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

4.14.4 Impacts and Mitigation Measures

Methodology

The population and housing impact analysis evaluates:

- existing population and housing conditions in the Inyokern CDP and surrounding Indian Wells Valley based on the most current available ACS data, the Socioeconomic Analysis and Environmental Justice Analysis (Appendix J.2);
- whether existing community capacity — including housing stock, public services, and infrastructure — can accommodate the Project's temporary construction workforce and small permanent operations workforce without significant adverse effects; and
- whether new or expanded facilities, housing units, or public services would be required to accommodate the Project. The analysis applies the CEQA Appendix G significance

criteria set forth below and evaluates construction-phase and operations-phase effects separately.

Table 4.14-A - CEC SPPE Appendix B Section (g)(7) Compliance Cross-Reference

Ref.	Appendix B Requirement	Section / Table	Status
Appendix B §(g)(7)(A) — Socioeconomic Setting (Existing Conditions)			
(A)(i)	Economic characteristics, fiscal resources, list of taxing agencies and revenues (adopted and projected)	§4.14.5.1; Table 4.14-B	✓ Addressed
(A)(ii)	Social characteristics; population, demographic, and community trends	§4.14.1.3; Table 4.14-1	✓ Addressed
(A)(iii)	Existing and projected unemployment rates	§4.14.1.3; Table 4.14-1	✓ Addressed
(A)(iv)	Availability of skilled workers by occupation	§4.14.5.2; Table 4.14-C	✓ Addressed
(A)(v)	Availability of temporary and permanent housing; current vacancy rate	§4.14.1.3; Table 4.14-1	✓ Addressed
(A)(vi)	Capacities, service standards, use levels, and planned expansion of utilities and public services (fire, law, EMS, medical, schools, parks, libraries)	§4.14.1.3; §4.14.5.3; Table 4.14-D	✓ Addressed
(A)(vi) Schools	Current enrollment and yearly expected enrollment by grade level groupings for duration of construction (non-metro project)	§4.14.1.3; Table 4.14-2	✓ Addressed
Appendix B §(g)(7)(B) — Socioeconomic Impacts			

(B)(i)	Monthly employment by occupation during construction; permanent operations workers per year	§4.14.5.2; Table 4.14-C	✓ Addressed
(B)(ii)	Percentage of non-local workers expected to relocate	§4.14.4; Table 4.14-3	✓ Addressed
(B)(iii)	Estimated potential population increase (direct and indirect)	§4.14.4	✓ Addressed
(B)(iv)	Potential impact of population increase on housing (construction and operations)	§4.14.4; §4.14.5.3	✓ Addressed
(B)(v)	Potential impacts on utilities and public services; response times; school enrollment changes by grade level and school district	§4.14.4; §4.14.5.3; Table 4.14-D	✓ Addressed
(B)(vi)	Estimate of applicable school impact fees	§4.14.5.4	✓ Addressed
(B)(vii)	Total construction payroll; total operations payroll (permanent and short-term contract)	§4.14.5.5	✓ Addressed
(B)(viii)	Expenditures for locally purchased materials (construction and operations)	§4.14.5.5	✓ Addressed
(B)(ix)	Capital cost of the project (plant and equipment)	§4.14.5.5	✓ Addressed
(B)(x)	Sales taxes generated during construction	§4.14.5.5	✓ Addressed
(B)(xi)	Property taxes generated during an operational year	§4.14.5.5	✓ Addressed

(B)(xii)	Direct, indirect, and induced income and employment effects (construction and operations)	§4.14.5.6	✓ Addressed
(B)(xiii)	Environmental justice impacts by technical area; whether any impacts disproportionately affect EJ populations	§4.14.5.7	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(7). All criteria addressed in this chapter; full technical disclosure in the Preliminary Economic, Socioeconomic, Environmental Justice, and Growth-Inducing Impact Analysis (Appendix J.2), filed as a supporting exhibit to this Application.

Thresholds of Significance

Pursuant to Appendix G of the CEQA Guidelines (Title 14, California Code of Regulations), a project would normally have a significant effect on population and housing if it would:

- (a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- (b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Impact 4.14-1: Potential to Induce Substantial Unplanned Population Growth

This impact evaluates whether the Project would induce substantial unplanned population growth in the Inyokern area, either directly through the introduction of a large permanent workforce or new residential development, or indirectly through extension of infrastructure capacity intended to support off-site development.

Construction

Construction of the Project would occur over an approximately 48-month period. As documented in the Socioeconomic Analysis (Section 2.3 and Tables SEJ-1 and SEJ-1A), construction would require an average on-site workforce of approximately 300 workers and a peak on-site workforce of approximately 600 workers (peak month: Month 20, 592 workers). The workforce metrics and relocation estimates are summarized in Table 4.14-3 below.

Table 4.14-3. Construction Workforce and Population Effect Summary (Planning-Level)

Metric	Value	Source
Average on-site workforce	~300 workers/month	Socioeconomic Analysis, Table SEJ-1B
Peak on-site workforce	~600 workers (Month 20, 592 workers)	Socioeconomic Analysis, Table SEJ-1B
Total job-months (48-month total)	14,401	Socioeconomic Analysis, Table SEJ-1B
Total job-years	~1,200	Socioeconomic Analysis, Table SEJ-1B
Expected household relocation	0 to 2% of peak workforce (~0 to 12 persons)	Socioeconomic Analysis, Section 4.1
Primary labor source	Kern County and regional union labor pools	Socioeconomic Analysis, Section 3.6
Permanent operations workforce	~30 to 60 employees	Socioeconomic Analysis, Section 2.4

Source: Socioeconomic Analysis, Tables SEJ-1, SEJ-1A, SEJ-1B.

The Applicant intends to utilize primarily local union labor drawn from Kern County and the broader Southern and Central California labor market; accordingly, household relocation associated with construction is expected to be minimal — approximately 0 to 2 percent of the peak workforce, representing approximately zero to 12 persons at peak (Socioeconomic Analysis, Section 4.1). Non-local specialized personnel would be present only for limited durations and would rely on short-term lodging rather than permanent housing. At the maximum relocation estimate, this would represent less than 1.3 percent of the Inyokern CDP’s existing population of approximately 958 persons — a temporary effect of negligible magnitude.

Construction-related population effects would be temporary and limited. Workers not residing locally would be expected to rely primarily on regional commuting and lodging patterns in Ridgecrest and the broader Indian Wells Valley rather than establishing permanent households in

Inyokern. The Project does not include residential development and would not provide excess infrastructure capacity intended to support unrelated off-site development (Socioeconomic Analysis, Section 6.0). All utility infrastructure improvements required to serve the Project would be Applicant-funded and sized to serve the Project only.

Operation

Upon completion, the Project would employ approximately 30 to 60 permanent operations employees, supplemented by contract personnel as needed (Socioeconomic Analysis, Section 2.4). Because the Project would not include residential uses and the long-term workforce would be comparatively small, operation of the Project would not create substantial new housing demand or measurable population growth in the Project vicinity. The Project would not provide excess infrastructure capacity intended to support unrelated off-site development; accordingly, the Project would not indirectly induce substantial off-site population growth or unplanned residential development.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Impact 4.14-2: Potential to Displace Existing People or Housing

This impact evaluates whether the Project would displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Construction

The Project Site does not contain residential uses or occupied housing (Socioeconomic Analysis, Section 2.1). Construction activities would occur entirely on a currently unoccupied industrial site. No housing would be demolished or removed during construction.

Operation

Operation of the Project would not remove existing housing, demolish occupied residential units, or displace residents. Because no housing or residents would be displaced, the Project would not necessitate the construction of replacement housing elsewhere.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

4.14.5 CEC SPPE Appendix B — Additional Population and Housing Disclosure Requirements

This section provides the additional population and housing disclosure information required by CEC SPPE Appendix B, Section (g)(7). This information supplements the CEQA impact analysis provided in Sections 4.14.1 through 4.14.4 above. Appendix B, Section (g)(7), requires disclosure

of existing socioeconomic conditions, taxing agency revenues, skilled labor availability, housing vacancy, public services capacity, school enrollment projections, workforce estimates, payroll, local expenditures, capital costs, tax revenues, and direct/indirect/induced employment and income effects, as well as an environmental justice evaluation. Each of these requirements is addressed below.

Economic Characteristics, Fiscal Resources, and Taxing Agencies — Appendix B (g)(7)(A)(i)

Public services and fiscal resources relevant to the Project are provided by a combination of county agencies, school districts, and special districts, as described in the Socioeconomic Analysis (Section 3.2 and Table SEJ-A1). The applicable agencies and their current adopted revenues are summarized in Table 4.14-B below.

Table 4.14-B. Applicable Taxing Agencies and Fiscal Resources

Agency	Fiscal Year	Total Revenues (Adopted/Actual)	Projected Revenues (Next FY)	Source
County of Kern	FY 2024–25	\$4,401,674,913 (All Funds Adopted)	~\$4.5B (FY 2025–26)	County of Kern FY 2024–25 Adopted Budget
Sierra Sands Unified School District (SSUSD)	FY 2024–25	\$53,028,533 (General Fund Unrestricted)	\$81,054,506 (LCAP Total Revenue Projected)	SSUSD 2024–25 Estimated Actuals; SSUSD 2025–26 LCAP
Kern Community College District (KCCD)	FY 2024–25	\$258,709,034 (Unrestricted General Fund)	\$280,322,802 (Unrestricted General Fund)	KCCD 2025–26 Adopted Budget Presentation
Inyokern Community Services District (Inyokern CSD)	CY 2022 (reported)	\$392,995 (Annual Budget)	\$298,521 (Total Operating Incomes, Rate Analysis)	Kern County Grand Jury Report; ICSD Water Rate Analysis

Source: Socioeconomic Analysis, Table SEJ-A1.

Skilled Labor Availability and Monthly Construction Workforce by Occupation — Appendix B (g)(7)(A)(iv) and (B)(i)

The Project’s construction workforce requirements are consistent with the availability of unionized skilled trades within Kern County and the broader Southern and Central California labor market (Socioeconomic Analysis, Section 3.6). The full monthly construction workforce profile and occupational distribution — covering civil, structural, electrical, mechanical, controls/commissioning, and supervision categories across all 48 months — are provided in Tables SEJ-1 and SEJ-1A of the Socioeconomic Analysis (Appendix J.2). The key workforce metrics are summarized in Table 4.14-3 of this section. Specialized commissioning and original equipment manufacturer (OEM) personnel are expected to be drawn from regional or statewide sources on a temporary basis, consistent with advanced industrial facility practice. Permanent operations positions (30 to 60 employees) would be filled through local, regional, and specialized recruitment.

Table 4.14-C. Representative Occupational Mix by Construction Phase (Planning-Level)

Phase	Civil	Structural	Electrical	Mechanical	Controls/Comm.	Supervision
Early Civil (Months 1–6)	40%	25%	10%	10%	0%	15%
Vertical/MEP (Months 7–24)	10%	25%	25%	25%	5%	10%
Commissioning (Months 25–30)	5%	10%	30%	25%	20%	10%
Closeout/Demobilization (Months 31–48)	5%	10%	21%	21%	9%	34%

Source: Socioeconomic Analysis, Tables SEJ-2 and SEJ-2A.

Public Services Impacts, Utilities Capacity, and Housing Demand — Appendix B (g)(7)(A)(vi), (B)(iv), and (B)(v)

Incremental demand on utilities and public services would be limited and consistent with that of other industrial facilities of comparable scale, largely because the Project does not include residential uses and the permanent workforce is small. Emergency response services would be supported through site-specific emergency planning measures, including: coordination with local responders; on-site first-aid and AED provisions; construction traffic management and incident response protocols; and 24/7 security during operations. The Project would be subject to the Kern

County Fire Code (Chapter 17.32 of the Kern County Municipal Code) and would prepare and implement a Fire Protection Plan in coordination with KCFD.

Table 4.14-D. Public Services and Utilities — Providers, Response Times, and Project Demand

Service	Provider	Response Time / Travel Time	Project Effect	Planned Expansion Required?
Fire Protection	KCFD Station 73, Inyokern (6919 Monache Mountain Ave.)	Single-digit minutes (in-community; Table SEJ-C1)	Minimal; Fire Protection Plan to be prepared	No
Law Enforcement	KCSO Ridgecrest Substation (128 E. Coso Ave.)	~14 minutes (planning proxy; Table SEJ-C1)	Minimal; site security reduces call demand	No
Ambulance / EMS	Liberty Ambulance (350 E. Ridgecrest Blvd.)	~14 minutes (planning proxy; Table SEJ-C1)	Minimal; onsite first-aid reduces demand	No
Hospital / Emergency Dept.	Ridgecrest Regional Hospital (1081 N. China Lake Blvd.)	~14 minutes / ~10.1 miles (Table SEJ-C1)	Minimal; small workforce	No
Water / Wastewater	Inyokern CSD or successor upon consolidation	Water: Will-serve received (§1.4.5). Wastewater: Will-serve letter received from Inyokern CSD (Project commitment). LAFCo annexation pending.	Project-serving only; Applicant-funded improvements	No (Applicant-funded)
Solid Waste	Kern County franchise haulers	N/A — service contract basis	Routine industrial waste; modest volumes	No

Schools (K–12)	Sierra Sands USD	N/A	Negligible; no residential component	No
Parks / Libraries	Kern County	N/A	No measurable demand generated	No

Source: Socioeconomic Analysis, Sections 3.8 and 4.3, Table SEJ-A2, Table SEJ-C1.

Construction-related housing demand would be temporary. Workers not residing locally would rely primarily on Ridgecrest-area lodging and housing supply. Operations would involve a comparatively small permanent workforce. The Project would not remove housing, displace residents, or include residential development.

School District Impacts and School Impact Fees — Appendix B (g)(7)(B)(vi)

Because the Project does not include residential development and permanent staffing levels are limited, project-related school enrollment increases at SSUSD would be negligible (Socioeconomic Analysis, Section 4.4). As shown in Table 4.14-2, no project-related enrollment changes are anticipated in any grade grouping during the 48-month construction schedule or during operations. The Project would pay all applicable statutory school facilities fees at the time of building permit issuance pursuant to California Education Code Section 17620 and Government Code Section 65995. As documented in Table SEJ-9 of the Socioeconomic Analysis, the planning-level school facilities fee estimate for SSUSD ranges from approximately \$624,000 to \$1,044,000, based on a Level 1 commercial/industrial fee rate of \$0.78 to \$0.87 per square foot applied to an estimated chargeable area of 800,000 to 1,200,000 square feet. The chargeable area exceeds the 238,000 square foot building footprint because statutory school facilities fees apply to the total assessable development area, which includes not only the enclosed data center building but also ancillary structures and equipment pads outside the building envelope (e.g., generator enclosures, electrical switchgear pads, cooling infrastructure, and other site improvements subject to building permit). The fee range reflects planning-level uncertainty in the final mix and extent of permitted structures; the applicable fee will be confirmed with SSUSD at the time of building permit issuance.

Payroll, Local Expenditures, Capital Cost, and Fiscal Effects — Appendix B (g)(7)(B)(vii)–(xi)

As documented in the Socioeconomic Analysis (Section 4.5 and Tables SEJ-5, SEJ-6, SEJ-6A, and SEJ-10), construction of the Project would generate substantial payroll and local spending. The Project’s planning-level capital cost (ROM) is \$838,900,000 for the 99 MW campus. Construction payroll is estimated at approximately \$110 million to \$170 million (local/regional labor share), and total local and regional purchases during construction are estimated at \$300 million to \$600 million. Annual operations payroll for permanent staff is estimated at \$3 million to \$12 million per year, supplemented by local/regional contract services estimated at \$1 million to \$5 million per year.

Construction-period sales and use tax revenue is estimated at approximately \$2.5 million to \$7.4 million, based on taxable local purchases and the applicable California Department of Tax and Fee Administration (CDTFA) rate of 8.25 percent for unincorporated Kern County. Illustrative annual property tax revenue during operations is estimated at approximately \$5 million to \$9 million per year, based on an illustrative assessed value range of \$500 million to \$900 million at the applicable Kern County ad valorem rate (approximately 1.0 percent base rate under Proposition 13, plus voter-approved debt levies). Final tax obligations will be determined by the Kern County Assessor consistent with applicable Tax Rate Area allocations.

Direct, Indirect, and Induced Employment and Income Effects — Appendix B (g)(7)(B)(xii)

As required by Appendix B (g)(7)(B)(xii), the Socioeconomic Analysis (Section 4.7 and Table SEJ-11) provides estimates of direct, indirect, and induced income and employment effects. Direct construction employment totals approximately 1,223 job-years, with indirect effects of approximately 295 job-years and induced effects of approximately 222 job-years, for a total of approximately 1,740 job-years over the 48-month construction period. Construction labor income from direct effects is estimated at \$110 million to \$170 million, with additional indirect and induced income of approximately \$32.5 million to \$50.3 million combined. During operations, direct employment of 30 to 60 permanent employees supports indirect employment of approximately 28 to 55 jobs and induced employment of approximately 19 to 40 jobs annually. Operations indirect labor income is estimated at approximately \$1.9 million to \$7.6 million per year and operations induced labor income is estimated at approximately \$1.5 million to \$6.1 million per year (Socioeconomic Analysis, Table SEJ-11). Multiplier estimates are based on Kern County IMPLAN-proxy multipliers as disclosed in the Socioeconomic Analysis.

Environmental Justice — Appendix B (g)(7)(B)(xiii)

The California Energy Commission Appendix B (g)(7)(xiii) requires that environmental justice (EJ) impacts be discussed by technical area, including whether any impacts would disproportionately affect EJ populations. The adopted CEQA guidelines do not contain an environmental justice requirement of analysis or threshold and Kern County does not require it for environmental review. Consistent with the State's definition of Environmental Justice under California Government Code Section 65040.12, this section evaluates whether Project-related population and housing effects would result in a disproportionate share of negative consequences for a disadvantaged community with minority or low-income populations. The full EJ analysis is provided in Appendix J.2 (see also §4.19), which includes CalEnviroScreen 4.0 and SB 535 designation mapping (Figure 4.14-2 — CalEnviroScreen Mapping), demographic vulnerability indicators, and project-specific technical area impact conclusions.

The Inyokern CDP has a CalEnviroScreen 4.0 overall percentile score of 66, which is below the 75th percentile threshold for disadvantaged community designation under CalEPA criteria. The community is also not designated as a disadvantaged community under SB 535 criteria (OEHHA, 2022; 2026). However, community vulnerability indicators are noteworthy: the poverty rate (approximately 17.5 percent based on ACS 2023 data) and unemployment rate (12.4 percent) are elevated relative to Kern County and the United States, and CalEnviroScreen health indicators show above-average asthma (79th statewide percentile) and cardiovascular disease (96th statewide

percentile) emergency department visit rates. These conditions inform the sensitivity of the community to potential project-related effects.

For the population and housing issue area specifically, the Project would not remove housing, displace residents, or generate substantial permanent population growth. As summarized in Table SEJ-7 of the Socioeconomic Analysis, the Project's EJ effect for Population and Housing is characterized as "None" based on no displacement and no growth-inducing mechanism. The Project is anticipated to generate beneficial employment and income effects during construction — including approximately 1,223 direct construction job-years — that could provide economic benefit to local and regional workers, including those in the Inyokern community. The Project does not create a disproportionate adverse effect through displacement or substantial housing demand on the Inyokern community.

The overall EJ evaluation — including technical area impacts for air quality, noise, traffic, hazardous materials, public services, and aesthetics — is addressed in Appendix J.2 (see also §4.19). Project compliance measures incorporated into construction and operations are expected to maintain compliance with applicable standards, ensuring that the Project does not create disproportionately high and adverse human health or environmental effects on low-income or minority populations in Inyokern.

4.14.6 Cumulative Setting, Impacts and Mitigation Measures

The geographic scope for cumulative population and housing impacts is the regional housing and lodging market serving Inyokern, including Ridgecrest and the broader Indian Wells Valley, together with other reasonably foreseeable projects that could overlap with Project construction and compete for temporary labor or lodging resources.

See Appendix N.3 for the Project's cumulative impact list, including reasonably foreseeable projects that could overlap with Project construction and compete for temporary labor or lodging resources in the Indian Wells Valley region.

The Project's contribution to cumulative population and housing effects would be limited because the Project:

- is consistent with the goals and policies of the Kern County General Plan Housing Element and the Inyokern Specific Plan, neither of which would be adversely affected by the Project's nonresidential use on an M-2 PD designated site.
- does not include residential development or induced demand for the creation of new housing because the Applicant intends to utilize primarily local union labor drawn from Kern County and the broader Southern and Central California labor market; accordingly, household relocation associated with construction is expected to be minimal — approximately 0 to 2 percent of the peak workforce, representing approximately zero to 12 persons at peak (Socioeconomic Analysis, Section 4.1). Non-local specialized personnel would be present only for limited durations and would rely on short-term lodging rather than permanent housing. At the maximum relocation estimate, this would represent less

than 1.3 percent of the Inyokern CDP's existing population of approximately 958 persons; a temporary effect of negligible magnitude.

- incremental demand on utilities and public services would be limited and consistent with that of other industrial facilities of comparable scale, largely because the Project does not include residential uses and the permanent workforce is small. As discussed in the *Socioeconomic Analysis (Appendix J.2)*, Sections 3.8 and 4.3, Table SEJ-A2, Table SEJ-C1, no planned expansion of essential public services are expected for fire protection, law enforcement, ambulance/EMS, hospital / emergency department, water / wastewater, solid waste, schools (K-12), and parks / libraries.
- direct employment of 30 to 60 permanent employees during operations supports indirect employment of approximately 28 to 55 jobs and induced employment of approximately 19 to 40 jobs annually which are likely to be drawn from the Indian Wells Valley and particularly the City of Ridgecrest consistent with regional labor market conditions. The unemployment rate in Inyokern (12.4%) is elevated relative to Kern County (8.9%) and the United States (2.9%) (Socioeconomic Analysis, Table SEJ-10), which suggests that the regional and local labor market will absorb the nominal amount of full-time employment supporting the operations and maintenance of the Project.

The Project would not make a cumulatively considerable contribution to a cumulatively significant population or housing impact.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

4.15 PUBLIC SERVICES AND RECREATION

Introduction

This section of the Application describes the affected environment and regulatory setting pertaining to public services, which include fire protection, emergency medical services, law enforcement, schools, parks and recreation, libraries, and other public facilities.

This section also addresses the potential impacts on public services that would result from implementation of the Project and identifies mitigation measures and Project design features to reduce these potential impacts. Information for this section was taken from the Project Description (Section 3), Site Plan (Appendix A.1), the Economic, Socioeconomic, Environmental Justice, and Growth-Inducing Impact Analysis (Socioeconomic Study), the Environmental Justice section, the Public Services Emergency Response and Access Map (Appendix B, Section (g)(7)), and published agency sources, websites, and service agency plans.

This section also satisfies the public services and socioeconomic information requirements of California Energy Commission (CEC) Small Power Plant Exemption (SPPE) Appendix B, Section (g)(7); those requirements are addressed in Section 4.15.5 of this chapter.

CEC SPPE Appendix B — Section (g)(7) Applicability

California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(7) requires the following for a Small Power Plant Exemption (SPPE) application:

(g)(7)(A) — Socioeconomic Setting:

A description of the socioeconomic circumstances of the vicinity and region, including: economic characteristics, fiscal resources, and a list of applicable local agencies with taxing powers and their most recent and projected revenues; social characteristics including population, demographics, and community trends; existing and projected unemployment rates; availability of skilled workers by occupation; availability of temporary and permanent housing and current vacancy rates; and capacities, service standards, existing and expected use levels, and planned expansion of utilities and public services, including fire protection, law enforcement, emergency response, medical facilities, school districts, parks and recreation facilities, libraries, and other public facilities. For projects outside metropolitan areas with a population of 500,000 or more, school district information shall include current enrollment and yearly expected enrollment by grade level groupings for the duration of the project construction schedule.

(g)(7)(B) — Socioeconomic Impacts: A discussion of the socioeconomic impacts caused by construction and operation, including: (i) workforce estimates by occupation; (ii) percentage of non-local workers expected to relocate; (iii) estimated population increase; (iv) housing impacts; (v) impacts on public services including additional costs, ability to meet service standards, and response times to hospitals and for police protection, fire protection, and emergency services; (vi) estimate of applicable school impact fees; (vii) total construction

payroll and operations payroll; (viii) expenditures for locally purchased materials; (ix) capital cost (plant and equipment); (x) sales taxes generated during construction and an operational year; (xi) property taxes generated during an operational year; (xii) direct, indirect, and induced income and employment effects; and (xiii) a discussion of impacts to environmental justice populations by technical area and whether any impacts would disproportionately affect environmental justice populations.

All Section (g)(7) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.15.1–4.15.4. The Appendix B supplemental disclosure is provided in Section 4.15.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.15-A, immediately preceding Section 4.15.4.

4.15.1 Environmental Setting

Fire Protection

The Kern County Fire Department (KCFD) provides primary fire protection services, fire prevention, emergency medical, and rescue services to 992,529 residents of Kern County (2024) located in forty-two (42) communities in unincorporated areas of Kern County and ten (10) incorporated cities within the County over a large land area of 8,141 square miles.

In 2024, the KCFD made 90,064 responses to involving 55,444 incidents. The operating budget is \$243.8 million dollars (FY 25/26). The department is comprised of over 621 permanent employees with 521 uniformed officers stationed in 49 stations within 8 battalions and is equipped with 46 fire engines, 14 Type 3 engines, 4 ladder trucks, 1 reserve truck, 34 patrol vehicles, 12 reserve patrol vehicles, 26 BC vehicles, 8 crew buggies, 6 dozers, 5 masticators, 4 reserve dozers, 6 water tenders, 4 hand crews, 2 mass decon trailers, 4 safety officer vehicles, 25 command vehicles, 2 helicopters, 2 helitenders, 2 technical rescues vehicles, 1 excavator, 1 oil fire foam tender, 4 medic squad vehicles, 12 ALS med units, 3 Haz Mat Response Teams, and other ancillary vehicles and staff.

Kern County has 14 mutual-aid agreements with neighboring fire suppression organizations to further strengthen the emergency services. In addition to its local mutual aid collaborations, the KCFD has a mutual aid agreement with the Los Angeles County Fire Department (LACFD) in the event that KCFD is unable to be the primary responder to an emergency. The LACFD has 174 fire stations throughout Los Angeles County. The LACFD is divided into 22 battalions with over 4,000 personnel (LACFD, 2017; background reference — LACFD serves as regional mutual aid resource only). The nearest LACFD fire stations to the project site are Station Nos. 33 and 117, located at 44947 Date Avenue and 44851 30th Street E., both in Lancaster, approximately 67 miles slightly southwest of the project site.

The Project site is located within Battalion 7 of KCFD, which encompasses the northeastern portion of Kern County. Fire Station No. 83 is the closest KCFD station to the Project site, located at 6919 Monache Mountain Ave. in Inyokern, approximately 0.5 miles to the northwest of the Project site, and would be the primary responder to a fire or emergency at the Project site. Station 83 is confirmed as the primary response station per the Emergency Response and Access Map

prepared for this Application (see Figure 4.15-1). In the event of a major fire or when short-staffed, mutual aid stations would be called upon to respond. Given Station 83's in-community location approximately 0.5 miles from the Project site, response times are expected to be in the single-digit minute range under normal conditions. Information on the three closest fire stations to the Project site is provided in Table 4.15-1.

Table 4.15-1 List of Nearby Fire Stations

Agency / Facility	Address	Approximate Distance from Project Site
KCFD Station No. 83 (Primary)	6919 Monache Mountain Ave., Inyokern, CA 93527	-0.5 miles to the northwest
KCFD Station No. 84 (Mutual Aid)	139 E. Las Flores Ave., Ridgecrest, CA 93555	-15 miles to the southeast
KCFD Station No. 81 (Mutual Aid)	815 W. Dolphin Ave., Ridgecrest, CA 93555	-17 miles to the southeast

Source: Kern County Fire Department; Emergency Response and Access Map (Appendix B, Section (g)(7)).

Kern County Fire Department (KCFD) Station 83, located in Inyokern, California, recently upgraded its equipment with a new Pierce Enforcer fire engine, featuring a 500-horsepower motor and 1500 GPM water pump. The station serves Inyokern and surrounding areas with a focus on fire suppression and emergency response.

As shown in the Fire Hazard Severity Zone maps included in Section 4.20, Wildfire, of this Application, and according to the California Department of Forestry and Fire Protection (CAL FIRE), Kern County Fire Hazard Severity Zone Maps for the Local Responsible Areas, a majority of the Project site is classified as a Local Responsibility Area (LRA). The Project site is outside of areas identified by CAL FIRE as having substantial or very high fire risk. The Project site is not within a State Responsibility Area (SRA).

Kern County applies and utilizes the National Fire Code set forth by the National Fire Protection Association, the California Fire Code, the California Building Code, and the Kern County Ordinance Code to regulate fire safety. The proposed data center facility would be equipped with VESDA aspirating smoke detection, Novec/FM-200 clean-agent suppression systems in white-space and UPS rooms, pre-action sprinklers in mechanical and electrical rooms, and wet-pipe sprinklers in office areas per NFPA 13. On-site fire pumps (duty and standby), fire water storage tanks, and on-site hydrants would be provided per NFPA 20. A Knox Box rapid entry system at

the secured main gate on SR-178 would provide emergency services with immediate access to the campus.

The Project would not require the construction or expansion of KCFD Station 83 or any additional fire protection facilities. The on-site fire suppression systems, including VESDA smoke detection, clean-agent suppression, pre-action and wet-pipe sprinkler systems, on-site fire pumps, water storage, and hydrant infrastructure, are designed to contain and control fire events at the facility level, reducing incremental demand on KCFD resources. No expansion of existing fire protection facilities is required or currently planned as a result of the Project.

Emergency Medical Services

The Kern County Emergency Medical Services Division (EMS) is the lead agency for the emergency medical services system in Kern County and is responsible for coordinating all system participants, which include the public, fire departments, ambulance companies, other emergency service providers, hospitals, and Emergency Medical Technician (EMT) training programs throughout the County. KCFD Station 83 is Advanced Life Support (ALS)-equipped, providing on-scene medical response. Liberty Ambulance serves as the regional ground ambulance transport provider, affiliated with Ridgecrest Regional Hospital. The closest hospital to the Project site is Ridgecrest Regional Hospital, located approximately 15 miles to the southeast at 1081 N. China Lake Blvd. in the City of Ridgecrest, with a 24/7 emergency department. Inyokern Airport, located approximately 0.4 miles west of the Project site, is available as a resource for air ambulance transport if needed.

The Project's permanent operations workforce of approximately 30 to 60 employees would generate minimal incremental demand on emergency medical services. This staffing level is comparable to a small light-industrial facility and would not materially affect Liberty Ambulance service capacity, Ridgecrest Regional Hospital emergency department operations, or the ALS response capability of KCFD Station 83. No expansion of EMS infrastructure is required or currently planned as a result of the Project.

Law Enforcement Protection

Kern County Sheriff's Office

The Kern County Sheriff's Office (KCSO) provides basic law enforcement services in the unincorporated areas of the County, which includes the Project area. The KCSO enforces local, State, and federal laws and is responsible for crime prevention, field patrol (ground and air), crime investigation, the apprehension of offenders, regulation of noncriminal activity, and related support services. Traffic and parking control functions are also provided along with investigations of property damage reports and traffic accidents.

As of April 2026, the Kern County Sheriff's Office (KCSO) has approximately 1,495 authorized positions across all personnel categories, comprising approximately 627 sworn deputy, 358 detention deputy, 470 professional support, and 40 specialized/reserve positions (KCSO, 2024). While the department has significantly improved its filled staffing levels—rising from 67% to 86% over recent years—it continues to face vacancy challenges in specific areas, particularly

detentions. The department's workforce is distributed across sworn law enforcement, specialized detention roles, and professional support staff.

- Sworn Deputy Sheriffs: Approximately 627 authorized positions. These deputies are deployed to patrol, 15 different substations, detectives, and special investigation units.
- Detention Deputies: Approximately 358 authorized positions. They are responsible for managing the county's jail system, including the Lerdo Detention Facilities and the Central Receiving Facility.
- Professional Support Staff: Over 470 employees. This category includes 911 dispatchers, records specialists, deputy coroners, and administrative personnel.
- Specialized Personnel: Includes roughly 40 park rangers and a dedicated Reserve Organization of trained volunteers.

KCSO is actively recruiting to fill persistent gaps caused by historical hiring freezes and high attrition, notably involving:

- A. Vacancy Rates: As of 2024 KCSO staffing data, approximately 79% of deputy positions and 66% of detention deputy positions are filled.
- B. Hiring Incentives: To attract candidates, the department offers a \$25,000 lateral bonus for experienced deputies with a Basic POST certificate. A \$2,000 monthly housing stipend is also available for sworn staff assigned to outlying areas like Mojave, Ridgecrest, and Frazier Park.
- C. Recruitment Events: KCSO frequently hosts "On-Site Testing" events at the Regional Training Center in Bakersfield to streamline the application process for trainees.

The KCSO serves the unincorporated areas of Kern County, including the Project area. KCSO staffing levels, substation assignments, and service configurations are subject to ongoing operational changes; current staffing information should be confirmed directly with KCSO prior to final filing. The headquarters for the KCSO is located in the City of Bakersfield. The KCSO operates substations throughout the County that provide patrol services. The Project site would be served by the Ridgecrest Substation, located approximately 15 miles southeast of the Project site at 128 East Coso Avenue in the City of Ridgecrest. This substation provides services to the communities of Ridgecrest, China Lake Acres, Inyokern, and surrounding areas. Information on the three closest substations to the Project site is provided in Table 4.15-2.

The KCSO prioritizes life-threatening calls requiring immediate response. Average response times vary depending on the severity of the call, available staffing, and the location of patrol units at the time of the call. For the Project site, response time from the Ridgecrest Substation would depend on demand at the substation at the time of the call and could be longer for non-emergency calls given the approximately 15-mile distance.

The Project's security design, including 24/7 on-site monitoring, perimeter fencing, controlled access at all entry points, and CCTV surveillance, would substantially reduce reliance on KCSO patrol response during operations. The permanent workforce of approximately 30 to 60 employees would generate minimal incremental demand on law enforcement services. No expansion of the KCSO Ridgecrest Substation or additional law enforcement facilities is required or currently planned as a result of the Project.

Table 4.15-2 List of Nearby Sheriff Substations

Agency / Facility	Address	Approximate Distance from Project Site
KCSO Ridgecrest Substation (Primary)	128 E. Coso Ave., Ridgecrest, CA 93555	15 miles to the southeast
San Bernardino County Sheriff — Trona Substation	13215 Market Street, Trona, CA 93562	18.7 miles to the northeast
KCSO Boron Substation	26949 Cote Street, Boron, CA 93516	43 miles to the south
KCSO Mojave Substation	1771 Highway 58, Mojave, CA 93501	49 miles to the southwest

Source: Kern County Sheriff's Office, 2024 (staffing data confirmed prior to filing; substation locations and AOR verified current).

KCSO Off-Highway Vehicle Enforcement Team

In 2000, the KCSO created the Off-Highway Vehicle (OHV) Enforcement Team that can be deployed to off road riding areas and adjacent communities in Kern County, as needed. The goal of the OHV Enforcement Team is to provide a safe and secure environment for the OHV community and nearby residents, and to help protect sensitive natural resources. Kern County attracts over 800,000 visitors a year to the local OHV riding areas and approximately 500,000 visitors in east Kern area. The OHV Enforcement Team patrols numerous off road riding areas in Kern County, including a popular riding area near a portion of the Pacific Crest Trail that runs through Rosamond, Mohave, and Tehachapi. The OHV Enforcement Team works closely with officers from the Bureau of Land Management (BLM), California State Parks, and other local law enforcement agencies.

California Highway Patrol

The California Highway Patrol (CHP) is responsible for managing and regulating traffic for the safe, lawful, and efficient use of California highways. The CHP patrols State highways and County

roadways, enforces traffic regulations, responds to traffic accidents, and provides service and assistance to disabled vehicles. The CHP has a mutual aid agreement with KCSO.

The CHP is divided into eight divisions that provide services in areas of California, The project site is within the jurisdiction of the Inland Division (San Bernardino), which includes the most intensely congested roads in the nation at the intersections of Interstates 10, 15, 215, and Highways 60, 71, 91, and 210.

The Project site is within the jurisdiction of the CHP Inland Division. The nearest Inland Division office to the Project site is in the community of Mojave, approximately 45.5 miles southwest of the Project site.

Schools

The project area is served by the Sierra Sands Unified School District which consists of 11 schools, including: one high school, two middle schools, seven elementary schools and one continuation school. The district had a total enrollment of approximately 4,205 students in school year 2024–25.

The Project does not include residential uses and would not generate student enrollment at Sierra Sands Unified School District schools. The permanent operations workforce of approximately 30 to 60 employees is not expected to result in measurable enrollment increases, as workers are anticipated to reside in the existing Indian Wells Valley regional housing stock without triggering household relocation at any meaningful scale. The Project would pay applicable statutory school facilities fees pursuant to California Education Code Section 17620 at the time of building permit issuance. No expansion of SSUSD facilities is required or currently planned as a result of the Project.

The pupil-to-teacher ratio in the Sierra Sands Unified School District is 21.4 pupils per teacher, slightly above the California state average of 20.8. In addition to Kern County’s K–12 school districts, the County is also served by Cerro Coso Community College (Ridgecrest campus), Bakersfield College, California State University Bakersfield, and Taft College.

Table 4.15-3 Schools Serving the Project Area

School District / School	Grades	Enrollment (SY 2024–25)	Distance from Project Site
Sierra Sands Unified School District (SSUSD)	K–12	4,205 total	District serves Inyokern/Ridgecrest area
Inyokern Elementary School	K–8	See SSUSD total	-1 mile

Burroughs High School	9–12	See SSUSD total	-15 miles (Ridgecrest)

Source: SSUSD Enrollment Projections 2024; Ed-Data.

Parks and Recreation

The Kern County Parks and Recreation Department administers eight regional parks and 40 neighborhood parks. The IWVLM project area contains only one park: Inyokern County Park, located within the unincorporated community of Inyokern. This park contains playground facilities and is located in close proximity to Inyokern Elementary School.

The Bureau of Land Management designated three Wilderness Areas which lie partially within the boundaries of the regional setting of the Indian Wells Valley. These include the El Paso Mountains Wilderness, Kiavah Wilderness, and Owens Peak Wilderness (Kern River Ranger District, 2025).

Sequoia National Forest, located in the eastern Sierra Nevada, is adjacent to the regional setting of the Indian Wells Valley area. It is one of 19 National Forests in California and covers approximately 1,144,000 acres.

The California State Parks Service owns, maintains, and operates one State park (Red Rock Canyon), two State historic parks (Fort Tejon and Tomo-Kahni), and one State reserve (Tule Elk) in Kern County. Closest of all of these parks to the Project Site is Red Rock Canyon State Park.

Libraries

Two libraries exist in the vicinity of the project area. The 7,465-SF Ridgecrest Branch of the Kern County Public Library is located at 131 East Las Flores Avenue. The library building, constructed in 1978, serves the Ridgecrest/Inyokern area (Kern County Library; current holdings and hours available at kerncountylibrary.org). The second library is the Naval Air Warfare Technical Library, located at 1 Administration Circle in China Lake. This library is open with controlled access to Department of Defense employees and contractors only.

Other Public Facilities in Inyokern

Inyokern Community Center is supported by memberships for individuals, seniors, and businesses. It operates the Inyokern Town Hall: Used for public meetings regarding local services.

Inyokern State Preschool, a state funded program, has a capacity and enrollment of 24 participants.

Inyokern Senior Center is local facility in Inyokern offering recreational and community services for seniors. It features a 1,300-square-foot expansion to accommodate a billiards room and includes a nearby local park. The center serves as a hub for the local senior community, often featuring activities and social interaction.

Inyokern Airport (IYK) is a FAA-designated public-use airport located approximately 0.4 miles west of the Project site, owned and operated by the Indian Wells Valley Airport District. The airport features a 7,500-foot paved runway and serves the Indian Wells Valley area primarily for general aviation. The airport is available as a resource for air ambulance and emergency supply operations and is identified as an aerial emergency access point in the Emergency Response and Access Map prepared for this Application (Appendix B, Section (g)(7)).

The Inyokern Community Services District (CSD) provides water services to approximately 800-900 residents in Inyokern, California, often facing infrastructure challenges. Due to aging infrastructure and water supply issues, the district has faced critical water shortages and is exploring voluntary consolidation with the Indian Wells Valley Water District to ensure reliable service. A June 2025 Voluntary Consolidation Order from SWRCB is being considered to address the water system failures.

4.15.2 Regulatory Setting

Federal

The Federal Land Policy and Management Act of 1976 (FLPMA)

Land ownership in the Indian Wells Valley area consists of a checkerboard of substantial federal intermixed with state, local and private lands.

The Federal Land Policy and Management Act of 1976 (FLPMA) is a landmark US law that established a unified framework for the Bureau of Land Management (BLM) to manage, protect, and develop over 245 million acres of public lands for multiple use and sustained yield. Signed on October 21, 1976, by President Gerald Ford, it is considered the "BLM Organic Act" because it gave the agency a clear, modern mission, repealing many old, fragmented laws. It declared that public lands generally remain in federal ownership, prioritizing scientific, scenic, and environmental protection while managing for resources like grazing, mining, and energy development. Key components of FLPMA include:

- **Multiple-Use and Sustained Yield:** Mandates managing resources (timber, minerals, wildlife, recreation) to meet present and future needs without permanent impairment of land productivity.
- **Land Use Planning:** Requires the BLM to develop land-use plans (Resource Management Plans) through an interdisciplinary, public process.
- **Retention Policy:** Reversed the previous national policy of disposing of public lands (selling or transferring them), establishing that public lands should be retained in federal ownership.
- **Areas of Critical Environmental Concern (ACECs):** Directs the identification and protection of areas with significant historical, cultural, or natural value.

- **Management Authority:** Provides the BLM with comprehensive authority over grazing, mining, and right-of-way permits, including law enforcement capabilities.

The Wilderness Act of 1964 (NWPS)

The Bureau of Land Management designated three Wilderness Areas which lie partially within the boundaries of the regional setting of the Indian Wells Valley. These include the El Paso Mountains Wilderness, Kiavah Wilderness, and Owens Peak Wilderness (Kern River Ranger District, 2025).

Signed into law by President Lyndon B. Johnson on September 3, 1964, the Wilderness Act (PL 88-577) established the National Wilderness Preservation System (NWPS) to protect pristine federal lands. It initially protected 9 million acres, which has grown to over 111 million acres, managed by the NPS, BLM, FWS, and USFS. The Act defines wilderness as an area of undeveloped federal land, retaining its primeval character and influence, without permanent improvements or human habitation. It is designed to ensure an "enduring resource of wilderness" for the American people, managed to preserve its natural conditions. Allowed human activities include non-motorized recreation (hiking, camping, canoeing), scientific study, and other purposes deemed necessary for preserving the area's wilderness character. Generally, the Act prohibits permanent roads, commercial enterprises, motor vehicle or motorized equipment use, aircraft landing, and structures.

The National Park Service Organic Act

Sequoia National Forest, located in the eastern Sierra Nevada, is adjacent to the regional setting of the Indian Wells Valley area. It is one of 19 National Forests in California and covers approximately 1,144,000 acres.

The National Park Service Organic Act (39 Stat. 535, 54 U.S.C. §100101 et seq.), signed on August 25, 1916, by President Woodrow Wilson, created the National Park Service (NPS) within the Department of the Interior. It mandates the agency to conserve park scenery, wildlife, and history, leaving them "unimpaired" for future use. The fundamental purpose is to "promote and regulate the use of the Federal areas known as national parks, monuments, and reservations" and to conserve scenery, natural/historic objects, and wildlife, providing for public enjoyment while leaving them "unimpaired for the enjoyment of future generations." The Secretary of the Interior is authorized to make rules and regulations for the use and management of national parks.

The Federal Emergency Management Agency (FEMA)

FEMA is a U.S. government agency within the Department of Homeland Security, established in 1979 to lead federal efforts in preparing for, protecting against, responding to, and recovering from major disasters and emergencies. FEMA provides funding, planning, and on-the-ground support to state, local, tribal, and territorial governments, as well as aid to individuals and businesses. FEMA's major programs include the National Disaster Medical System, providing flood insurance (National Flood Insurance Program), assisting with emergency protective measures, and funding infrastructure recovery. Disaster response follows a Presidential disaster declaration, focusing on search and rescue, logistics, and temporary housing for survivors.

Based on available FEMA and state disaster declarations, Kern County was significantly impacted by wildfires in 2024, with major recovery efforts requested. As of early April 2026, no specific major FEMA disasters have been listed for Kern County in 2026, although general 2025/2026 emergency management preparations are ongoing. In 2024 Kern County Disasters & FEMA Support included:

- Borel Fire (July 2024): This fire, which began on July 24, 2024, resulted in a FEMA Fire Management Assistance Grant (FMAG) to support firefighting efforts. The fire burned over 31,000 acres, destroyed over 220 structures, and ravaged the town of Havilah.
- Park and Borel Fires Major Disaster Request (Sept 2024): Governor Newsom requested a Presidential Major Disaster Declaration for Kern, Butte, and Tehama counties in September 2024 to support recovery from the Borel and Park fires, which included requests for FEMA Individual Assistance and Hazard Mitigation programs.
- Severe Winter Storms (Feb 2024): Kern County was listed as a contiguous county eligible for federal assistance due to the severe winter storms, tornadoes, flooding, landslides, and mudslides that occurred between January 31 and February 9, 2024.

State

The California State Parks and Recreation Department (CalParks)

CalParks owns, maintains, and operates one State park (Red Rock Canyon), two State historic parks (Fort Tejon and Tomo-Kahni), and one State reserve (Tule Elk) in Kern County. Red Rock Canyon State Park, located 26 miles south of the Project Site, is the closest state park.

California state parks are governed by the Public Resources Code (PRC) § 5001 et seq. and Title 14 of the California Code of Regulations, which mandate the protection of natural/cultural resources while providing public recreation. Key statutes include strict rules against disturbing features, 15 mph speed limits, leash laws, and authorized fires only. These statutes define the state park system's purpose to preserve outstanding natural, scenic, and cultural values while allowing public enjoyment. Removing, damaging, or defacing any archaeological, geological, or botanical feature (plants, driftwood, rocks) is strictly prohibited. The California Department of Parks and Recreation is responsible for management of state parks.

California Fire Code

The California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes minimum requirements to safeguard public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. Chapter 6 (Building Services and Systems) of the Code focuses on building systems and services as they relate to potential safety hazards and when and how they should be installed. Section 608 of the California Building Code includes requirements for battery energy storage system (BESS)s greater than 20 kWh, which includes the proposed PV rooftop and carport

facilities. Section 608 includes requirements for vehicle impact protection, location, spacing between batteries, egress, security, and fire suppression systems. Building services and systems are addressed include emergency and standby power systems, electrical equipment, wiring and hazards, and stationary storage battery systems. Chapter 33 (Fire Safety During Construction and Demolition) of the Code outlines general fire safety precautions to maintain required levels of fire protection, limit fire spread, establish the appropriate operation of equipment and promote prompt response to fire emergencies. Features regulated include fire protection systems, fire fighter access to the site and building, means of egress, hazardous materials storage and use and temporary heating equipment and other ignition sources.

California Department of Forestry and Fire Protection (CAL FIRE)

Under Title 14 of the California Code of Regulations, CAL FIRE has the primary responsibility for implementing wildfire planning and protection for State Responsibility Areas. CAL FIRE adopted Fire Hazard Severity Zone maps for SRAs and Local Responsibility Areas. The Project site is not located within an SRA but is located within an unincorporated LRA with a moderate fire hazard classification (CAL FIRE, 2022).

In addition to wildland fires, CALFIRE's planning efforts involve responding to other types of emergencies, including medical aids, hazardous material spills, swift water rescues, search and rescue missions, civil disturbances, train wrecks, floods, and earthquakes. Through contracts with local government, CALFIRE provides emergency services in 36 of California's 58 counties. While protecting 36 counties directly or via contract, CAL FIRE works alongside 6 "contract counties"—Kern, Los Angeles, Marin, Orange, Santa Barbara, and Ventura—which handle their own fire protection in state responsibility areas.

Beyond wildland firefighting, CAL FIRE handles structure fires, vehicle accidents, medical emergencies, floods, and hazardous material spills. CAL FIRE operate as a vast "all-risk" department with 21 operational units throughout the state.

Local

Kern County Fire Code

Chapter 17.32 of the Kern County Municipal Code details the Kern County Fire Code, which is an adoption of the California Fire Code with local amendments. The purpose of the Kern County Fire Code is to regulate the safeguarding of life, property, and public welfare from the hazards of fire, hazardous materials release, and explosion, and to provide for the issuance of permits and collection of fees.

Kern County Fire Department Wildland Fire Management Plan

The KCFD Wildland Fire Management Plan adopted in 2009 assesses the wildland fire situation throughout the SRA within the County, identifies high-risk and high-value areas, and ranks areas in terms of priority needs. The Project site is located within a moderate fire hazard severity zone (KCFD, 2009).

Kern County Fire Department Unit Strategic Fire Plan

The KCFD Unit Strategic Fire Plan, adopted in March 2018, provides a comprehensive analysis of fire hazards, assets at risk, and level of services throughout the SRA within the County. According to the plan, 69 percent of Kern County areas are within an SRA. The Project site is located within Battalion 7 and is primarily within an LRA (KCFD, 2018b).

Kern County Fire Department Hazards Mitigation Plan

The purpose of the KCFD Hazards Mitigation Plan is to reduce or eliminate long-term risk to people and property from natural hazards and their effects in Kern County. The plan includes specific recommendations for actions that can mitigate future disaster losses, as well as a review of the County's current capabilities to reduce hazards impacts. This multi-jurisdictional plan includes Kern County, and the incorporated municipalities Arvin, Bakersfield, California City, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft,

Tehachapi, and Wasco. The plan also covers 53 special districts that include school, recreation and park, water, community service and other districts. The plan has been formally adopted by each participating entity and is required to be updated a minimum of every five years (KCFD, 2018a).

Kern County General Plan

The policies, goals, and implementation measures in the Kern County General Plan applicable to public services for this Project include the following. All policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Chapter 1: Land Use, Conservation and Open Space Element —

1.10: General Provisions

Goal 1: Ensure that the County can accommodate anticipated future growth and development while maintaining a safe and healthful environment and a prosperous economy by preserving viable natural resources, guiding development away from hazardous areas, and assuring the provision of adequate public services.

1.4: Public Facilities and Services

Goals

- Kern County residents and businesses should receive adequate and cost effective public services and facilities. The County will compare new urban development proposals and land use changes to the required public services and facilities needed for the proposed project.
- Promote an urban growth pattern in areas where adequate public service infrastructure exists or can be provided.
- Distribute the cost of new services or facilities equitably among the beneficiaries.

- Provide coordination between public entities to ensure infrastructure standards and equitable fiscal support.
- Ensure that adequate supplies of quality (appropriate for intended use) water are available to residential, industrial, and agricultural users within Kern County.
- The County will ensure adequate fire protection to all Kern County residents.
- The County will ensure adequate police protection to all Kern County residents.
- Provide recreation opportunities for all citizens of Kern County while avoiding duplication between jurisdictions.
- Provide a balanced system of parks and recreational facilities to meet Kern County's diverse needs and clearly define responsibility for the provision of these facilities.
- Provide a variety of park and recreation programs that offer safe, equitable, and balanced recreation opportunities for all residents and visitors.

Policy 1: New discretionary development will be required to pay its proportional share of the local costs of infrastructure improvements required to service such development.

Policy 6: The County will ensure adequate fire protection to all Kern County residents.

Policy 7: The County will ensure adequate police protection to all Kern County residents.

Measure B: Determine local costs of County facility and infrastructure improvements and expansion which are necessitated by new development of any type and prepare a schedule of charges to be levied on the developer at the site of approval of the Final Map. This implementation can be effectuated by the formation of a County work group.

Measure L: Prior to the approval of development projects, the County shall determine the need for fire protection services. New development in the County shall not be approved unless adequate fire protection facilities and resources can be provided.

1.10.1: Public Services and Facilities

Policy 1: New discretionary development will be required to pay its proportional share of the local costs of infrastructure improvements required to service such development.

Policy 3: Individual projects will provide availability of public utility service as per approved guidelines of the serving utility.

Policy 4: The provision of parks and recreational facilities of varying size, function, and location to serve County residents will be encouraged. Special attention will be directed to providing linear parks along creeks, rivers, and streambeds in urban areas.

Policy 5: Seek to provide recreational facilities where deficiencies have been identified.

- Policy 6:** The County will ensure adequate fire protection to all Kern County residents.
- Policy 7:** The County will ensure adequate police protection to all Kern County residents.
- Measure B:** Determine local costs of County facility and infrastructure improvements and expansion which are necessitated by new development of any type and prepare a schedule of charges to be levied on the developer at the time of approval of the Final Map. This implementation can be effectuated by the formation of a County work group.
- Measure C:** Project developers shall coordinate with the local utility service providers to supply adequate public utility services.
- Measure J:** Ensure that the Superintendent of Schools and the respective school districts are informed of development proposals and are afforded the opportunity of evaluating their potential effect on the physical capacity of school facilities.
- Measure L:** Ensure that the Superintendent of Schools and the respective school districts are informed of development proposals and are afforded the opportunity of evaluating their potential effect on the physical capacity of school facilities.

Chapter 4: Safety Element — 4.6: Wildland and Urban Fire

Goals

- Minimize injuries and loss of life and reduce property damage.
 - Reduce economic and social disruption resulting from earthquakes, fire, flooding, and other geologic hazards by assuring the continuity of vital emergency public services and functions.
 - Ensure the availability and effective response of emergency services following a catastrophic event.
 - Prepare the County for effective response to, and rapid beneficial recovery from the occurrence of a catastrophic event.
 - Ensure that adequate emergency services and facilities are available to the residents of Kern County through the coordination of planning and development of emergency facilities and services.
- Policy 1:** Require discretionary projects to assess impacts on emergency services and facilities.
- Policy 3:** The County will encourage the promotion of fire prevention methods to reduce service protection costs and costs to taxpayers.
- Policy 4:** Ensure that new development of properties have sufficient access for emergency vehicles and for the evacuation of residents.
- Policy 6:** All discretionary projects shall comply with the adopted fire code and the requirements of the fire department.

Measure A: Require that all development comply with the requirements of the Kern County Fire Department or other appropriate agency regarding access, fire flows, and fire protection facilities.

Inyokern Specific Plan

The entire Project site is subject to the provisions of the Inyokern Specific Plan, which contains goals, policies, and standards compatible with those of the Kern County General Plan but unique to the specific needs of the Inyokern area. All policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference. Applicable provisions include:

Land Use, Open Space, and Conservation Element — 1.2: Public Facilities

Goal: To provide adequate public services and facilities to meet current and projected community needs.

Policy 1: All new development shall be required to pay its proportional share of the costs of local infrastructure improvements, such as streets, sewers, water lines, and park development.

Policy 2: Development shall include provisions to reduce the physical and fiscal impacts on the Sierra Sands Unified School District. Developers may be required to contribute funds or dedicate land to the District for school use.

Policy 4: New industrial and commercial development shall be required to connect to the Inyokern Community Services District service systems, or shall provide sewage disposal in accordance with requirements of the California Regional Water Quality Control Board, Lahontan District, and the Kern County Environmental Health Services Department. Should new development occur outside the community services district boundaries, but inside the Specific Plan boundaries, annexation to the community services district shall be required unless the development otherwise meets the requirements of the Lahontan District and the Kern County Environmental Health Services Department.

Policy 7: New development will be required to demonstrate the availability of adequate fire protection and suppression facilities.

Measure 2: The County shall consult with the Sierra Sands Unified School District and the Inyokern CSD prior to the approval of any zone change, conditional use permit, final map subdivision, or parcel map.

Measure 3: Appropriate zoning shall be implemented to restrict intense development in the vicinity of the Inyokern Airport in accordance with the policies of this Plan.

Measure 4: Plans for adequate water and sewer systems for development projects shall be completed and approved in coordination with the Inyokern CSD, the Kern County

Environmental Health Services Department and Kern County Fire Department prior to occupancy.

Measure 5: Drainage plans shall conform to County Standards and to applicable requirements of the Kern County Department of Planning and Development Services.

4.15.3 Impacts and Mitigation Measures

Methodology

The proposed Project's potential impacts to public services and recreation include: (1) evaluation of existing fire and law enforcement services and personnel for the stations and substations serving the Project site; (2) determination of whether existing services and personnel are capable of servicing the proposed Project in addition to the existing population and building stock; and (3) determining whether the proposed Project's contribution to the future service population would cause fire or sheriff station(s) to operate beyond service capacity.

The methodology for this analysis includes the Project Description (Section 3, Site Plan (Appendix A.1), the Economic, Socioeconomic, Environmental Justice, and Growth-Inducing Impact Analysis (Socioeconomic Study), the Environmental Justice section, the Public Services Emergency Response and Access Map (Appendix B, Section (g)(7)), and published agency sources, websites, and service agency plans.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could have a significant adverse effect on public services.

Public Services

A project would have a significant impact on public services if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

- Fire protection;
- Police protection;
- Schools;
- Parks; or
- Other public facilities.

Project Impacts

Impact 14.5-1 Fire Protection and Emergency Medical Services

Construction

The Project's construction workforce is estimated to peak at approximately 592 workers and average approximately 300 workers over the 48-month construction period. Most construction workers are anticipated to commute daily from areas within Kern County, and especially the City Ridgecrest, rather than relocate to Inyokern.

Household relocation is estimated at approximately 0 to 2 percent of the peak workforce. As described above, the Project site is outside of areas identified by CAL FIRE as having substantial or very high fire risk.

The Project site would be designed with on-site perimeter access roads encircling the 50-acre campus for emergency vehicle circulation and a Knox Box rapid entry system at the secured main gate on SR-178. Primary access is from SR-178 (West Inyokern Road) with secondary emergency access from Brown Road on the western boundary.

Construction activities could introduce fire risks such as sparks, hot work, and fuel to the site. Construction would also generate truck and employee traffic along haul routes, which could temporarily increase demand for fire protection response. Service demands per temporary employee are less than service demands per resident; nevertheless, the presence of construction personnel would result in a temporary increased demand for fire protection and emergency medical services.

As required by Mitigation Measure MM 4.15-1, the project proponent would prepare and implement a Fire Safety Plan that contains notification procedures and emergency fire precautions consistent with the California Fire Code (Title 24, Part 9, CCR, as in effect at the time of permit issuance) and Kern County Fire Code. Following mitigation, impacts to fire protection services would be less than significant during project construction.

Additionally, as required by Mitigation Measure MM 4.15-2, the Applicant would prepare and implement a Construction Safety Plan for construction activities consistent with the California Fire Code, Kern County Fire Code and general best practices for emergency service and reduction in vandalism.

Following implementation of Mitigation Measure MM 4.15-1 and MM 4.15-2, impacts to fire protection and emergency medical services during Project construction would be less than significant.

Operation

Upon completion, the Project would employ approximately 30 to 60 permanent employees at the facility, supplemented by contract service personnel. Unlike a large residential development or

population-generating use, the permanent staffing level is modest and would generate limited ongoing demand for fire protection and EMS services.

The facility would be designed in accordance with the California Fire Code and Kern County Fire Code. Project fire suppression systems would include VESDA aspirating smoke detection, Novec/FM-200 clean-agent suppression in white-space and UPS rooms, pre-action sprinklers in mechanical and electrical rooms, and wet-pipe NFPA 13 sprinklers in office areas, along with on-site fire pumps, fire water storage tanks, and hydrants per NFPA 20. The facility would also maintain 24/7 on-site security monitoring. These design features significantly reduce the likelihood of a fire requiring KCFD response and limit the need for emergency medical services during operations.

The permanent operations workforce of approximately 30 to 60 employees represents a modest employment base comparable to a small light-industrial facility and would place minimal incremental demand on Station 83 for routine EMS and fire response. Station 83 serves a low-density rural service area in the Indian Wells Valley where call volumes are substantially lower than urban or suburban stations of comparable classification; the Project's incremental contribution to that call volume would be negligible. The integrated on-site suppression systems — VESDA detection, clean-agent suppression in IT and UPS spaces, pre-action and wet-pipe sprinklers throughout, dedicated fire pumps, and on-site water storage — are specifically designed to detect, contain, and suppress fire events at the facility level without requiring KCFD deployment in most scenarios. In the event of a generator fuel fire or other major incident, the 600,000-gallon on-site diesel storage is contained within a secondary containment system designed per NFPA 30, and the Knox Box rapid-entry system ensures immediate KCFD access when response is required. Taken together, the modest permanent workforce, the low baseline call volume of Station 83's service area, and the facility's integrated suppression and containment systems support a finding that the Project's incremental operational demand on fire protection and emergency medical services would be less than significant and would not require new or expanded KCFD facilities.

Mitigation Measures:

- MM 4.15-1: Prior to the issuance of grading or building permits, the project proponent/operator shall develop and implement a Fire Safety Plan for use during construction, operation, and decommissioning. The project proponent/operator shall submit the plan, along with maps of the project site and access roads, to the Kern County Fire Department for review and approval. A copy of the approved fire safety plan shall be submitted to the Kern County Planning and Natural Resources Department prior to commencement of ground disturbance. KCFD approval shall be received prior to commencement of ground disturbance. The fire safety plan shall contain notification procedures and emergency fire precautions including, but not limited to the following:
- a. All internal combustion engines, both stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order.

- b. Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. These vehicle types will maintain their factory-installed (type) muffler in good condition.
- c. Fire rules shall be posted on the project bulletin board at the contractor's field office and areas visible to employees.
- d. Equipment parking areas and small stationary engine sites shall be cleared of all extraneous flammable materials.
- e. Personnel shall be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires to prevent them from growing into more serious threats.
- f. The project proponent/operator shall make an effort to restrict the use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to periods outside of the official fire season. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall be easily accessible to personnel.

MM 4.15-2 Prior to issuance of grading or building permits, the project proponent shall provide a Construction Safety Plan for all construction activities for review and acceptance by the Kern County Fire Department and Kern County Sheriff Department. The Construction Safety Plan shall include, but not be limited to, truck and delivery routes, worker awareness plan for emergency incidents, names with full contact information for contractor, subcontractors, and owner, details and location of onsite emergency construction and medical equipment and general best practices implemented to prevent theft and vandalism.

MM 4.15-3 Pursuant to the Kern County General Plan and the Inyokern Specific Plan, the project proponent will be required to pay its proportional share of the local costs of infrastructure improvements required to service such development.

Mitigation Measures: Implementation of MM 4.15-1, MM 4.15-2, and MM 4.15-3 would be required.

Level of Significance after Mitigation: Less than significant.

Impact 4.15-2 Law Enforcement Protection

Construction

As described above, the KCSO provides primary law enforcement protection services for the Project site and surrounding areas through the Ridgecrest Substation, located approximately 15 miles southeast of the Project site. During construction, the Project could temporarily increase service needs from KCSO. The presence of construction workers and equipment could attract

vandals or present other security risks. Worker commutes could potentially increase traffic volumes on SR-178 and HWY-395, which could temporarily affect CHP patrol operations.

Security fencing would be installed around the site perimeter and areas requiring controlled access. The additional volume of vehicles associated with construction worker commutes would be temporary and is not expected to adversely affect traffic conditions beyond those analyzed in Section 4.16, Traffic and Transportation.

New or physically altered KCSO facilities would not be required to accommodate the Project during construction. Impacts to law enforcement protection services during construction would be less than significant.

Operation

Project operation would employ approximately 30 to 60 permanent employees and contract service personnel. The facility would include controlled access at all entry points, 24/7 on-site security monitoring, perimeter fencing, and CCTV surveillance, which would substantially reduce the need for sheriff surveillance and response during operations.

Periodic commutes of operations and maintenance workers would generate minor traffic volumes and would not be expected to adversely affect KCSO response times or CHP patrol operations. New or physically altered KCSO facilities would not be required to accommodate the Project. MM 4.15-2 provides for details of the Construction Safety Plan to ensure coordination with the Kern County Sheriff and reduce rural theft and vandalism.

Mitigation Measures: Implementation of MM 4.15-2 would be required.

Level of Significance: Less than significant.

4.15-3 Schools, Parks, and Other Public Facilities

The Project would require a peak construction workforce of approximately 592 workers and an average workforce of approximately 300 workers over the 48-month construction period. Most construction workers are expected to reside in the Indian Wells Valley region and commute to the Project site daily, with household relocation estimated at 0 to 2 percent of the peak workforce. The Project does not include residential uses. The temporary nature of construction employment and the reliance on daily commuting rather than household relocation means that the Project would not generate a substantial permanent increase in local population that would adversely affect school enrollment, park facilities, library services, or other public facilities such as post offices or courthouses.

Upon completion, the Project would employ approximately 30 to 60 permanent employees. This small permanent operations workforce, combined with the absence of residential uses, means that the Project would not generate measurable enrollment increases at SSUSD schools or meaningful additional demand on parks, libraries, or other public facilities. The Project would pay applicable statutory school facilities fees at the time of building permit issuance as required by California Education Code Section 17620, offsetting any incremental impact on school facilities. No new or

physically altered schools, parks, libraries, or other public facilities would be required to accommodate the Project.

Mitigation Measures: No additional mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Additionally, the Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could have a significant adverse effect on recreation.

Recreation

A project would have a significant impact on recreation if the Project:

- (c) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- (d) if the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Project Impacts

Impact 4.15-4: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

As discussed above, the Project would require a peak construction workforce of approximately 592 workers and an average workforce of approximately 300 workers over the 48-month construction period. Most construction workers are expected to reside in the Indian Wells Valley region and commute to the Project site daily, with household relocation estimated at 0 to 2 percent of the peak workforce. The Project does not include residential uses. The temporary nature of construction employment and the reliance on daily commuting rather than household relocation means that the Project would not generate a substantial permanent increase in local population that would result in substantial physical deterioration or acceleration of physical deterioration Inyokern's recreational facilities.

Upon completion, the Project would employ approximately 30 to 60 permanent employees. This small permanent operations workforce, combined with the absence of residential uses, means that the Project would not generate measurable demand on recreational facilities.

Based on the Project's Socioeconomic Analysis (Section 4.1) it is estimated that household relocation to the Inyokern area attributable to construction would be approximately 0 to 2 percent of the peak workforce, representing approximately zero to 12 persons at maximum. This represents less than 1.3 percent of the Inyokern CDP's existing population of approximately 958 persons (2020 Decennial Census) — a temporary effect of negligible magnitude. Non-local specialized personnel would be present only for limited durations during commissioning activities and would

rely on short-term lodging in Ridgecrest or the broader Indian Wells Valley rather than permanent household relocation.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less than significant.

Impact 4.15-5: Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The Project does not include recreational facilities. As discussed above, based on the Project's Socioeconomic Analysis (Section 4.1), it is estimated that household relocation to the Inyokern area attributable to construction would be approximately 0 to 2 percent of the peak workforce, representing approximately zero to 12 persons at maximum. This represents less than 1.3 percent of the Inyokern CDP's existing population of approximately 958 persons (2020 Decennial Census) — a temporary effect of negligible magnitude. Non-local specialized personnel would be present only for limited durations during commissioning activities and would rely on short-term lodging in Ridgecrest or the broader Indian Wells Valley rather than permanent household relocation. Due to the minimal population-related impacts of the Project, the Inyokern community would not require the construction or expansion of recreational facilities

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less than significant.

Table 4.15-A - CEC SPPE Appendix B Section (g)(7) — Compliance Cross-Reference

Ref.	Appendix B Section (g)(7) Requirement	Section / Table	Status
Section (g)(7)(A) — Socioeconomic Setting Requirements			
(A)(i)	Economic characteristics, fiscal resources, and list of taxing agencies with most recent and projected revenues	§4.15.1; §4.15.5.3	✓ Addressed
(A)(ii)	Social characteristics — population, demographics, and community trends	§4.15.5.4; Table 4.15-7	✓ Addressed

(A)(iii)	Existing and projected unemployment rates	§4.15.5.4	✓ Addressed
(A)(iv)	Availability of skilled workers by occupation required for construction and operation	§4.15.5.3	✓ Addressed
(A)(v)	Availability of temporary and permanent housing and current vacancy rate	§4.15.5.3	✓ Addressed
(A)(vi)	Capacities, service standards, use levels, and planned expansion of utilities and public services (fire, law enforcement, EMS, medical, schools, parks, libraries, other public facilities); school enrollment by grade grouping for construction duration (non-metro projects)	§§4.15.1.1–4.15.1.4; Tables 4.15-1, 4.15-2, 4.15-3; §4.15.5.2; Table 4.15-5	✓ Addressed
Section (g)(7)(B) — Socioeconomic Impact Requirements			
(B)(i)	Workforce estimate by occupation each month during construction; permanent operations workers	§4.15.5.3; Tables SEJ-1A, SEJ-2, SEJ-2A (Socioeconomic Study)	✓ Addressed
(B)(ii)	Percentage of non-local workers expected to relocate	§4.15.5.3	✓ Addressed
(B)(iii)	Estimated potential population increase (direct and indirect)	§4.15.5.3	✓ Addressed
(B)(iv)	Impact of population increase on housing during construction and operations phases	§4.15.5.3	✓ Addressed
(B)(v)	Potential impacts on public services including additional costs, ability to meet service standards, and response times to hospitals and for police, fire, and emergency services	§§4.15.3, 4.15.5.1; Table 4.15-4	✓ Addressed

(B)(vi)	Estimate of applicable school impact fees	§4.15.5.2; Table 4.15-6	✓ Addressed
(B)(vii)	Total construction payroll; total operations payroll (permanent and short-term employees)	§4.15.5.3	✓ Addressed
(B)(viii)	Estimate of expenditures for locally purchased materials during construction and operations	§4.15.5.3	✓ Addressed
(B)(ix)	Estimate of the capital cost (plant and equipment) of the project	§4.15.5.3	✓ Addressed
(B)(x)	Estimate of sales taxes generated during construction and separately during an operational year	§4.15.5.3	✓ Addressed
(B)(xi)	Estimate of property taxes generated during an operational year	§4.15.5.3	✓ Addressed
(B)(xii)	Expected direct, indirect, and induced income and employment effects due to construction and operation	§4.15.5.3	✓ Addressed
(B)(xiii)	Discussion of impacts to environmental justice populations by technical area; whether any impacts would disproportionately affect EJ populations	§4.15.5.4; Table 4.15-7	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(7). All criteria addressed in this chapter; full socioeconomic disclosure in the Socioeconomic Study (filed as a supporting exhibit to this Application).

CEC SPPE Appendix B — Additional Public Services Disclosure Requirements

This section provides the additional public services and socioeconomic disclosure information required by CEC SPPE Appendix B, Section (g)(7). This information supplements the CEQA impact analysis provided in Sections 4.15.1 through 4.15.4 above. Appendix B, Section (g)(7), requires a description of the socioeconomic setting of the vicinity and region and a discussion of the socioeconomic impacts of construction and operation, including public service costs and response times, school enrollment and impact fees, payroll, local spending, capital cost, tax

estimates, direct/indirect/induced economic effects, and a discussion of environmental justice impacts by technical area. Each of these requirements is addressed below.

Response Times — Appendix B (g)(7)(B)(v)

Appendix B specifically requires response-time and access context for fire, police, EMS, and hospital services. Table 4.15-4 restates this information from the Socioeconomic Study (Table SEJ-C1) and the Emergency Response and Access Map.

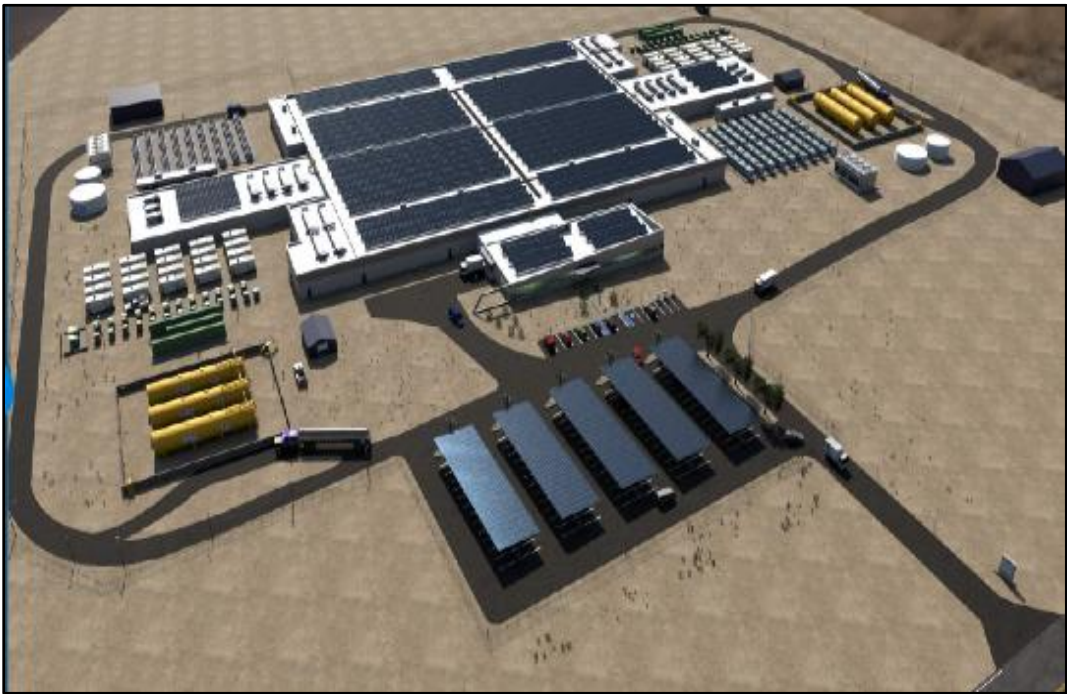
Table 4.15-4 Emergency Response and Travel Time Summary

Service	Nearest Facility / Provider	Address	Approx. Distance / Travel Time	Notes
Fire / Emergency Response	KCFD — Station 83 (Inyokern)	6919 Monache Mountain Ave., Inyokern, CA 93527	~0.5 mi / single-digit minutes	Primary response; ALS-equipped; Station 83 confirmed per Emergency Response and Access Map. Mutual aid: Stations 84 (~15 mi) and 81 (~17 mi).
Law Enforcement	KCSO — Ridgecrest Substation	128 E. Coso Ave., Ridgecrest, CA 93555	~15 mi / ~14 minutes (Emergency Response and Access Map; Inyokern–Ridgecrest routing)	Primary law enforcement AOR for Inyokern unincorporated area
Ambulance / EMS Transport	Liberty Ambulance	350 E. Ridgecrest Blvd., Ridgecrest, CA 93555	~15 mi / ~14 minutes (Emergency Response and Access Map; Inyokern–Ridgecrest routing)	Ground EMS; identified by Ridgecrest Regional Hospital as regional provider
Hospital / Emergency Department	Ridgecrest Regional Hospital — ED	1081 N. China Lake Blvd., Ridgecrest, CA 93555	~15 mi / ~14 minutes (Emergency Response and Access Map;	Nearest 24/7 emergency department; Inyokern Airport (~0.4 mi) available for air ambulance

			Inyokern– Ridgecrest routing)	

Source: Socioeconomic Study, Table SEJ-C1; Emergency Response and Access Map (Appendix B, Section (g)(7)).

Figure 4.15-1 — The Emergency Response and Access Map (Appendix B, Section (g)(7)) is incorporated here by reference and depicts the Project site boundary, Station 83 (primary, -0.5 mi), mutual aid Stations 84 and 81, the KCSO Ridgecrest Station (~15 mi), Ridgecrest Regional Hospital ED (-15 mi), the SCE Ridgecrest Service Center, and primary (SR-178) and secondary (Brown Road) emergency access routes.



School Enrollment and Impact Fees — Appendix B (g)(7)(A)(vi) and (B)(vi)

Appendix B requires current and projected school enrollment by grade grouping for the duration of construction, and an estimate of applicable school impact fees, for projects outside metropolitan areas with a population of 500,000 or more. Table 4.15-5 provides SSUSD enrollment baseline and projections for the 48-month construction period (school years 2024–25 through 2028–29).

Table 4.15-5 SSUSD Enrollment by Grade Grouping — Baseline and Projected (Construction Period)

School District	SY 2024–25	SY 2025–26	SY 2026–27	SY 2027–28	SY 2028–29 / Source

SSUSD — K–5	1,818	1,811	1,802	1,821	1,828
SSUSD — 6–8	987	996	1,027	1,052	1,034
SSUSD — 9–12	1,400	1,405	1,409	1,367	1,394
SSUSD — TOTAL	4,205	4,212	4,238	4,240	4,256

Source: Socioeconomic Study, Table SEJ-A3; SSUSD Enrollment Projections 2024.

Table 4.15-6 SSUSD School Facilities Fee Estimate (Planning-Level)

School District	Fee Type	Rate (\$/sf)	Estimated Chargeable Area	Estimated Fee / Timing
Sierra Sands Unified School District (SSUSD)	Statutory School Facilities Fee — Commercial/Industrial (Level 1)	\$0.78 – \$0.87	800,000 – 1,200,000 sq. ft.	\$624,000 – \$1,044,000; at building permit issuance

Source: Socioeconomic Study, Table SEJ-9.

Workforce, Population, Housing, Payroll, and Fiscal Disclosure — Appendix B (g)(7)(B)(i)–(xi)

The Socioeconomic Study provides the full Appendix B workforce, population, housing, payroll, local spending, capital cost, and fiscal disclosure required by Section (g)(7)(B)(i) through (xi). Public services and fiscal resources relevant to the Project are provided by a combination of county agencies, school districts, and special districts.

The County of Kern adopted budget consists of approximately \$4,401,674,913 in FY 2024–25 and receives property tax allocations that fund countywide services including law enforcement and road maintenance.

The Sierra Sands Unified School District (SSUSD) had general fund unrestricted revenues of approximately \$53,028,533 in FY 2024–25 and receives funding through state allocations, local property tax apportionments, and statutory school facilities fees.

The Inyokern Community Services District (CSD) had a reported annual budget of approximately \$392,995, funded primarily through rate-based revenues from water and wastewater service charges (Socioeconomic Study, Table SEJ-A1). Key planning-level figures relevant to the Project are summarized below:

Construction workforce: Peak approximately 592 workers; average approximately 300 workers; 48-month duration; total approximately 14,401 job-months (~1,200 job-years). Occupational mix by phase provided in Socioeconomic Study, Tables SEJ-1A, SEJ-2, and SEJ-2A.

Non-local worker relocation: Approximately 0–2% of peak workforce; primary reliance on local/regional union labor (Socioeconomic Study, Section 4.1).

Population and housing: Construction population increases temporary and lodging-based (Ridgecrest area); operations workforce of 30–60 permanent employees would not create substantial housing market pressure (Socioeconomic Study, Sections 4.1–4.2, Table SEJ-3).

Capital cost (ROM): \$838,900,000 for the 99 MW campus (Socioeconomic Study, Section 2.5).

Construction payroll: Approximately \$110M–\$170M (prevailing wage; Socioeconomic Study, Table SEJ-6A).

Operations payroll: Approximately \$3M–\$12M per year (Socioeconomic Study, Table SEJ-6A).

Local/regional purchases: \$300M–\$600M during construction; \$4.5M–\$20M per year during operations (Socioeconomic Study, Table SEJ-6A).

Sales/use tax: Estimated \$2.5M–\$7.4M during construction; approximately \$370,000–\$1,650,000 per year during operations (8.25% rate; Socioeconomic Study, Table SEJ-10).

Property tax: Illustrative \$5M–\$9M per year based on assessed value of \$500M–\$900M (Socioeconomic Study, Table SEJ-10).

Direct/indirect/induced employment: Construction: ~1,223 direct + ~295 indirect + ~222 induced job-years (multiplier ~1.42); Operations: 30–60 direct + ~28–55 indirect + ~19–40 induced jobs annually (multiplier ~2.58) (Socioeconomic Study, Table SEJ-11).

Environmental Justice — Appendix B (g)(7)(B)(xiii)

Appendix B requires a discussion of impacts to environmental justice populations by technical area and whether any impacts would disproportionately affect environmental justice populations. The full Environmental Justice analysis is provided in Section 4.18 (Environmental Justice) of this Application and in the Socioeconomic Study (Section 5.0). Key findings are summarized in Table 4.15-7.

The Inyokern Census Designated Place (CDP) has a CalEnviroScreen 4.0 percentile score of 66, below the 75th percentile threshold for disadvantaged community designation. The SB 535 Disadvantaged Communities Map also indicates that Inyokern is not designated as a disadvantaged

community. While the community exhibits certain health and socioeconomic stressors — including elevated asthma (79th percentile) and cardiovascular disease (96th percentile) rates relative to California census tracts, a poverty rate of 22.5 percent, and an unemployment rate of 12.4 percent — Project impacts across all technical areas would be less than significant or beneficial. The Project would not result in disproportionately high and adverse human health or environmental impacts on low-income or minority populations.

Table 4.15-7 Environmental Justice Impact Screening by Technical Area

Technical Area	EJ Effect	Basis
Population and Housing	None	No residential displacement; project does not include housing
Employment and Income	Beneficial	~1,223 direct construction job-years; preference for local/regional union labor; 30–60 permanent operations jobs
Air Quality	Mitigated — Less than Significant	Compliance with CAAQS, NAAQS, and EKAPCD thresholds per Project air quality analysis (Appendix F.1)
Noise	Mitigated — Less than Significant	Compliance with Kern County noise standards; construction hour restrictions; design controls
Traffic / Transportation	Temporary — Less than Significant	Construction traffic management; operations traffic limited by small permanent workforce
Public Services	Less than Significant	No new public facilities required; applicant-funded improvements; no disproportionate burden
Hazardous Materials	Less than Significant	Compliance with applicable hazardous materials handling and waste management requirements

Source: Socioeconomic Study, Table SEJ-7; Environmental Justice section.

4.15.4 Cumulative Setting, Impacts and Mitigation Measures

Cumulative impacts for public services are considered significant if the incremental effects of individual projects are considerable when viewed in connection with the effects of past projects and other projects located in the vicinity of the Project site. The cumulative impact analysis area includes the service areas for KCFD and KCSO, which encompass unincorporated areas of Kern County.

The following eleven (11) past, present, and reasonably foreseeable future projects within the Indian Wells Valley (IWV) region form the basis of the cumulative analysis for public services, consistent with CEQA Guidelines Section 15130(a)(1). These projects were independently verified through the Kern County Planning & Natural Resources Department, the California State Clearinghouse (CEQAnet), Caltrans District 9, the Kern Council of Governments (Kern COG), the Indian Wells Valley Groundwater Authority (IWVGA), and the CEC Power Plant Database as of April 2026.

Past Projects: (1) RB Inyokern Solar Project (utility solar PV, EIR certified) — the most directly analogous prior IWV project, documenting desert tortoise habitat adjacent to the Project site and establishing the local biological and land use baseline; (2) Inyokern 1203 Community Solar Farm (operational since 2016) — SCE Inyokern Substation interconnection establishing the Kramer 115 kV grid baseline; (3) Windhub Solar Project (approved) — contributing to the cumulative IWV solar and desert habitat disturbance footprint; and (4) Edwards AFB Solar Project (EIR certified) — adding to cumulative Mojave Desert habitat disturbance and construction-phase diesel emissions inventory. Coso Geothermal Complex (Units 1–3, 430 MW, operating since 1987–1991) serves as the existing baseline reference and is the dominant existing industrial presence in the IWV for air quality, groundwater, grid infrastructure, and cultural resource purposes.

Present Projects: (5) IWVGA Imported Water Pipeline (EIR SCH# 2023080020, certification estimated 2026) — the highest-priority cumulative water infrastructure project in the IWV, involving a 50-mile linear corridor; (6) SR-178 Rehabilitation, Segment 1 (Caltrans Project 09-38331, \$26.6M, construction April 2027) — direct overlap with the Project’s primary east-west access corridor during the construction window; (7) SR-178 Rehabilitation, Segment 2 (Caltrans Project 09-38330, \$34.7M, construction July 2027) — completing the combined \$61.3M SR-178 corridor rehabilitation concurrent with Project construction; and (8) Mojave Life of Mine Reclamation, CalPortland (NOP August 2024, EIR in progress) — contributing haul truck traffic on SR-14 and SR-58 access corridors.

Future Projects: (9) Pappas Solar Project / Radiant BMT LLC (NOP March 2026, EIR in preparation) — the most recent IWV CEQA filing, contributing to cumulative desert habitat disturbance; and (10) SR-14 Shoulder Widening (Caltrans Project 09-39140, \$60.8M, construction estimated March 2030) — the primary north-south materials delivery corridor from the Antelope Valley, with potential overlap with the later phases of the Project’s 48-month construction schedule.

With respect to public services specifically, none of the ten cumulative reference projects or the baseline Coso Geothermal Complex involves a residential component or use that would generate

measurable new demand on KCFD, KCSO, school districts, parks, libraries, or other public facilities within the Inyokern service area. Each project is a non-residential industrial, energy infrastructure, transportation, or mining use. The SR-178 rehabilitation projects (Projects 6 and 7) present the most direct cumulative overlap with public services: concurrent construction activity on the Project's primary emergency access corridor during 2027 could temporarily affect KCFD Station 83's response time and CHP patrol access. This potential overlap is addressed by Mitigation Measure MM 4.15-2, which requires a Construction Safety Plan coordinated with KCFD and KCSO that includes a construction traffic management plan for the SR-178 access point and a protocol for maintaining emergency vehicle access during concurrent Caltrans construction activities.

None of the cumulative projects would require expansion of KCFD Station 83, the KCSO Ridgecrest Substation, Ridgecrest Regional Hospital, Sierra Sands Unified School District facilities, Kern County library branches, or other public facilities serving the Project area. The cumulative public services demand generated by all non-residential projects in the IWB is governed primarily by construction workforce size and duration rather than permanent population. The Project's peak construction workforce of approximately 592 workers, with 0 to 2 percent estimated household relocation and daily commuting from the Ridgecrest area, does not materially compound the service demands of the other industrial and infrastructure projects identified above, which draw from the same regional labor pool and generate comparable or lesser temporary demands on public services.

As discussed above, law enforcement and fire service impacts related to the proposed Project would be less than significant with implementation of Mitigation Measures MM 4.15-1 through MM 4.15-3. MM 4.15-2 requires a Construction Safety Plan that would reduce fire risks and the consequential need for fire protection services during construction and operation, and increase coordination with fire and law enforcement.

Similar to the proposed Project, all other past, present, and reasonably foreseeable future projects located within these fire and sheriff service areas would be required to undergo environmental review in compliance with CEQA, comply with the California Fire Code and Kern County Fire Code, and pay pertinent taxes and fees.

Should potential impacts to public services be identified for such projects, appropriate mitigation would be prescribed. The Project would comply with the goals, policies, and implementation measures of both the Kern County General Plan and the Inyokern Specific Plan.

The proposed Project does not include residential uses and would not generate a permanent population increase sufficient to create meaningful cumulative demand on schools, parks, libraries, or other public facilities. The Project would pay statutory school facilities fees, ensuring that incremental public service demands are appropriately funded. Cumulatively significant impacts on public services are not anticipated.

Mitigation Measures: MM 4.15-1 through MM 4.15-3.

Level of Significance after Mitigation: Less than significant.

4.16 TRANSPORTATION AND TRAFFIC

Introduction

This section of the Application describes the affected environment and regulatory setting for transportation and circulation associated with the Project. This section also evaluates the transportation impacts associated with development of the Project and, where necessary, identifies mitigation measures that would avoid or lessen those impacts.

This section draws on relevant information from the Transportation Facility Inventory Map (Figure T-4), Airport Proximity Map (Figure T-2), Emergency Route and Public Services Map (Appendix B, Section (g)(7)), Sensitive Receptor Map (Appendix B, Section (g)(10)(B)), Trip Generation and Vehicle Miles Traveled Analysis (Appendix H.1), and Thermal Plume Analysis (Appendix E.4). This section also references Section 4.9 (Hazards and Hazardous Materials) for consistency with the hazardous materials transportation discussion.

CEC SPPE Appendix B, Section (g)(5) requirements are addressed in Section 4.16.5 of this chapter.

CEC SPPE Appendix B -- Section (g)(5) Applicability

California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(5) requires the Applicant to provide:

- (A) Regional transportation setting on topographic maps (1:250,000), identifying the project location and major transportation facilities, with reference to the transportation element of any applicable local or regional plan.
- (B) If the project is located within four miles of an airport: a map at 1:24,000 showing the airport configuration, influence area, and safety zones; a thermal plume analysis; a discussion of conformance with applicable Airport Land Use Compatibility Plan policies; and copies of any submitted FAA Form 7460-1.
- (C) An evaluation of the project's potential impacts related to vehicle miles traveled (VMT), including local jurisdiction thresholds, methodologies, VMT heat maps, and transportation demand management plans.
- (D) Identification on topographic maps (1:24,000) of existing and planned roads, rail lines, bike trails, airports, bus routes, pipelines, and canals, including for each road: (i) classification and design capacity; (ii) current AADT and peak traffic; (iii) current and projected levels of service; (iv) weight and load limitations; (v) estimated truck/passenger vehicle mix; and (vi) road safety features.
- (E) An assessment of construction and operation impacts on transportation facilities, including: (i) estimated one-way trip lengths for workers, deliveries, and truck haul trips; and (ii) a description of public roadways and intersections temporarily or permanently altered.

- (F) A discussion of project-related hazardous materials to be transported, including types, quantities, estimated trips, routes, means of transport, and associated transportation hazards.

All Section (g)(5) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.16.1-4.16.4. The Appendix B supplemental disclosure is provided in Section 4.16.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.16-A, immediately preceding Section 4.16.4.

4.16.1 Environmental Setting

Regional Setting

The Project Site is located in the Indian Wells Valley within the western Mojave Desert in the unincorporated community of Inyokern in northeastern Kern County, at the northwest quadrant of State Route 178 (SR-178/West Inyokern Road) and U.S. Highway 395 (US-395). The Project Site is approximately 9.4 miles south of Inyo County and 9.3 miles west of San Bernardino County. The Project Site is located approximately 5.5 miles west of the City of Ridgecrest, 3 miles east of the community of Indian Wells, and 8 miles west of the main entrance to the China Lake Naval Air Weapons Station on East Inyokern Road which also known as State Route 178 (SR-178). The circulation system in the vicinity of the project site is made up of a combination of State and County-jurisdiction facilities. Major components of the system are discussed below and shown in Figure 1-2, Vicinity Map, Project Description (Section 3) of this Application.

The Transportation Facility Inventory Map (Figure T-4) identifies the roadway system serving the Project, the surrounding access framework, and the relationship of the Project Site to the regional highway network. The applicable local planning framework is established by the Kern County General Plan Circulation Element, the Inyokern Specific Plan, and the Kern County Airport Land Use Compatibility Plan (ALUCP) for Inyokern Airport, each of which is discussed in the Regulatory Setting in Section 4.16.2 below.

Major Highways

The project site is located near three major highways that would provide access to the general vicinity of the project during the construction and operation phases. State Route 14 (SR-14) and United States Route 395 (HWY-395) are key north–south corridors for the project area. In addition to providing north and south access, these roadways provide through traffic connections to the City of Ridgecrest, the communities of Inyokern and China Lake Acres, and the China Lake Naval Air Weapons Station. Recreational travelers from southern California to the mountain recreation areas use both routes heavily. In addition, SR-178 provides east–west service through the area and provides access from the City of Bakersfield to the City of Ridgecrest. The following provides a brief description of the major highways:

- **SR-14.** SR-14 is a north–south route that originates at Interstate 5 near Santa Clarita, California and travels through the eastern portion of Kern County, providing regional

access to the project site. SR-14 is a four-lane divided freeway located approximately 4 miles west of the project, with a connection to US 395 in the northern portion of the project site.

- **SR-178.** An east–west thoroughfare, SR-178 originates at State Route 99 (SR-99) and enters the project area just west of SR-14. After its junction with SR-14 it continues eastward along Inyokern Road, south on China Lake Boulevard, and continues east along Ridgecrest Boulevard.
- **HWY 395.** HWY 395 is a north–south route that begins in San Bernardino County at the junction with Interstate 15 and continues north to the Canadian border, traveling through Bishop, Reno, Nevada, Oregon, and eastern Washington. The two- to four-lane highway is located immediately north and east of the project site and would provide primary access to the project site.

Designated State Scenic Highways

According to the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, there are no Designated State Scenic Highways within Kern County (see Aesthetics, Section 4.1.3, *Regulatory Setting*, for more information on the State Scenic Highway Mapping System. The closest Eligible Scenic Highways are SR-14 (portion north of Business East Route 58) located approximately 3.7 miles to the west of the project site and Business East Route 58 (portion east of SR-14) located 43.2 miles south of the project site (Caltrans, 2017). Prominent views along SR-14 and Business East Route 58 adding to the scenic elements in the landscape for motorists include panoramic views of the open Mojave Desert landscapes and surrounding mountains. According to the Kern County General Plan Circulation Element, a scenic route is any freeway, highway, road, or other public right-of-way, which traverses an area of exceptional scenic quality.

Non-Motorized Transportation

Bicycling

According to the 2018 Kern Region Active Transportation Plan (ATP) (Kern COG 2018), the existing bicycle infrastructure network is disconnected with gaps in areas surrounding the Project site. The community of Inyokern is treated as part of the general unincorporated area plans of the ATP not part of the special focus areas for bicycling facilities.

Bicycling is considered an effective alternative mode of transportation that can help to promote human health through active activity, improve air quality, reduce the number of vehicles traveling along existing roads and highways, and reduce energy consumption.

There are 67 miles of existing bicycle facilities in the unincorporated portions of Kern County. Caltrans has identified four (4) classifications of bicycle facilities:

- Class I bikeways are “bike paths” separated completely from the roadway and designated for the exclusive use of bicyclists and pedestrians

- Class II bikeways are “bike lanes” within the roadway designated for the use of bicyclists.
- Class III bikeways are “bike routes,” which provide signs and a travel lane shared by pedestrians and vehicles.
- Class IV bikeways are separated bikeways include elements such as a raised curb or vertical posts that protect bicyclists from vehicles within the roadway.

The Kern County General Plan Circulation Element incorporates Class I, Class II and Class III. The bicycle facilities in unincorporated Kern County consist of over 25 miles of Class II Bike Lanes, over 38 miles of Class III Bike Routes, and 3 miles of Class I Bike Path along the Kern River. In its 2022 Regional Transportation Plan / The Kern County Council of Governments has proposed significant expansion of bikeways in the region including an additional 1,245 miles of new Class I, Class II and Class III bicycle paths, lanes and routes in the Kern region.

There are two Class III bicycle facilities in the immediate vicinity of the project site, which are located on SR-178 between SR-14 and Brown Road and on Brown Road between US 395 and South China Lake Boulevard.

Pedestrian Walkways

According to the 2018 Kern Region Active Transportation Plan (ATP) (Kern COG 2018), the existing bicycle infrastructure network is disconnected with gaps in areas surrounding the Project site. The community of Inyokern is treated as part of the general unincorporated area plans of the ATP not part of the special focus areas for pedestrian walkways.

Like bicycling, pedestrian travel is considered an effective alternative mode of transportation that can help to promote human health through active activity, improve air quality, reduce the number of vehicles traveling along existing roads and highways, and reduce energy consumption. Kern County is actively expanding pedestrian infrastructure through the Kern COG Active Transportation Plan (2018) and the “Walk Kern” community outreach program, focusing on building sidewalks, curb ramps, and safety enhancements to close gaps, particularly near schools and in residential areas. Major initiatives include the Panama Road improvements, Rexland Acres projects, and Niles Street improvements. Pedestrian walkways proximate to the Project Site consists of unimproved, dirt pathways along paved roadways. The Kern COG 2022 Regional Transportation Plan calls for 242 miles of pedestrian facilities in the Kern region over a 20 year period.

Public Transportation

Public transportation in Kern County is provided by Kern Regional Transit, which offers 17 fixed routes, inclusive of 12 fixed routes connecting rural communities, throughout the County and a dial-a-ride general public transportation service for residents in most communities. These routes provide regional connectivity, including services to Bakersfield and a connection to Metrolink in Lancaster. Key routes of the network include:

- 100 Bakersfield - Lancaster: Connects Bakersfield with Tehachapi, Mojave, Rosamond, and Lancaster.
- 110 Delano - Bakersfield: Connects Delano, McFarland, Wasco, and Shafter to Bakersfield.
- 120 Taft - Bakersfield: Connects Taft to Bakersfield.
- 140/145 Lamont - Bakersfield: Serves the Lamont area.
- 150 Lake Isabella - Bakersfield: Connects the Kern River Valley (Lake Isabella) to Bakersfield.
- 200-Series Routes: Serve the East Kern area, including Mojave, Ridgecrest, and Tehachapi.

As part of the 200-Series, Route 227 provides fixed-route scheduled bus service generally on weekdays between Ridgecrest and Lake Isabella on SR-178, with stops in the communities of Kernville, Onyx, and Inyokern. The nearest bus stop providing access to Route 227 is located adjacent to the project site on SR-178 between Reeves Avenue and West Graaf Avenue. Route 230 provides fixed-route scheduled bus service on weekdays between Mojave and Ridgecrest on SR-14 and SR-178, with stops in the communities of Lancaster, California City, and Inyokern. The nearest bus stop providing access to Route 230 is located approximately 350 feet west of the project site on SR-178 at Broadway.

Railways

Trona Railroad

The closest railways are located approximately 15 miles northeast of the project site in the unincorporated community of Searles. In Searles, the Trona Railway, a short-line railway owned by Searles Valley Minerals, and the Lone Pine Branch of the Union Pacific Railroad interchange.

Amtrak Rail Services

Amtrak provides passenger rail service from the City of Bakersfield north to the City of Sacramento via the San Joaquin train service (Amtrak 2024). The San Joaquin Valley Railroad provides freight service throughout the San Joaquin Valley and interchanges with the Union Pacific Railroad and the Burlington Northern Santa Fe Railroad in Bakersfield. The San Joaquin Valley Railroad transports commodities such as petroleum and agricultural products

California High-Speed Rail

Kern County is the southern anchor of the 171-mile Central Valley segment of the California High-Speed Rail, with a Southern Railhead Facility in Wasco completed in February 2026 for track-laying. This section connects Bakersfield to Merced, with active construction and 58 completed

structures in the area, serving as a cornerstone for future lines connecting to Palmdale and Los Angeles. Key Nexus Points and progress in Kern County:

- Central Valley Segment: Kern County is part of the 171-mile "Merced-Bakersfield" line, which is the first phase of the system.
- Railhead Facility: A 150-acre Southern Railhead Facility near Wasco was finished in Feb 2026 to manage the storage and deployment of rail and electrification materials.
- Major Milestone: Construction has transitioned to the track-laying and electrification phase.
- Bakersfield Station: A future high-speed rail station is planned for Bakersfield, connecting the Central Valley to the Antelope Valley and Los Angeles.
- Construction Activity: Work spans across Kern, Tulare, Kings, Fresno, and Madera counties.

The project is crucial to the state's high-speed rail network, with testing of the electrified line expected to start in 2028

Airports

The Inyokern Airport, a public-use airport, is located approximately 0.9 mile southeast of the Project Site. It is owned and operated by the Indian Wells Valley Airport District, and serves the northeastern communities of Kern County, California. The airport covers 1,640 acres at an elevation of 2,457 feet, with three asphalt paved runways that can accommodate almost any class of civilian, commercial, or military aircraft. In operation since 1935, the airport supports approximately 33,000 annual operations.

The China Lake Naval Air Weapons Station is located approximately 8 miles from the project site and is managed by the United States Navy. All aircraft operations at NAWS China Lake are conducted at Armitage Field, a military airfield, which has three runways with more than 26,000 feet (7,900 meters) of taxiway. This airport has been in operation since 1952.

Ridgecrest Community Hospital Heliport, a privately-owned and operated medical heliport, is located approximately 8 miles east of the project site in Ridgecrest, California. This heliport has been in operation since 1973.

Local Setting

Site Access

The Project Site is located on ~50 acres (main facility block; the total Project area including the subtransmission line corridor is approximately 83 acres) of generally undeveloped land in the Inyokern area. The site is bounded by SR-178 to the south, Brown Road to the west, the RB Inyokern Solar Project to the north, and US-395 to the east. Existing land uses in the Project

vicinity include commercial uses, scattered rural residential uses, airport-related facilities, utility infrastructure, and vacant land.

Local access to the Project would be provided from the existing roadway network. The principal roadways serving the Project Site are SR-178, US-395, Brown Road, and related local access roads in the Inyokern area. The Emergency Route and Public Services Map (Appendix B, Section (g)(7)) identifies primary access from SR-178 via a secured main gate with Knox Box rapid entry system, and secondary emergency access from Brown Road on the western boundary. An on-site perimeter service road is designed to provide emergency vehicle circulation around the full campus perimeter with a minimum 20-foot clearance for fire apparatus. A designated helicopter landing zone is provided within the Project Site for air ambulance access.

Traffic Analysis

The published daily capacity of a two-lane roadway in Kern County, such as State Route 178 within the study scope, is approximately 10,000 vehicles per day (Table T-001). Based on the most recent traffic volume data provided by the Caltrans Traffic Census Program, the average daily traffic volume for the segment of the 178 within the project scope is approximately 3,300 vehicles per day.

Kern County uses a Volume-to-Capacity (V/C) ratio to determine a roadway's level of service. A $(V/C) > 0.80$ is typically considered below level of service C and may require mitigation. In the case of the segment of State Route 178 within the study scope, the volume-to-capacity ratio is $(3,300/10,000) = 0.33$, which is less than 0.80, therefore the roadway segment is currently operating at an acceptable level of service and would continue to do so with the addition of project traffic.

Sensitive Receptors

The Sensitive Receptor Map (Appendix B, Section (g)(10)(B)) confirms that no schools, hospitals, daycare centers, or long-term care facilities are present within 0.25 mile of the Project Site. The nearest sensitive receptor is Inyokern Elementary School and State Preschool, located ~0.8 mile southwest of the Project Site. Ridgecrest Regional Hospital is located ~10.2 miles east of the Project Site, and Bella Sera Skilled Nursing Facility is located ~10.5 miles east.

Airport and Airspace Setting

Appendix B, Section (g)(5)(B), requires airport and airspace review where a project is located within four miles of an airport or airstrip. The Project Site is located ~0.9 mile southeast of Inyokern Airport (FAA Identifier: KIYK), as documented in the Thermal Plume Analysis (Appendix E.4), which triggers the mandatory analysis under Appendix B Section (g)(5)(B). The Airport Proximity Map (Figure T-2) depicts the airport boundary, FAR Part 77 imaginary surfaces, and the Project location relative to the airport.

Inyokern Airport is a publicly owned, public-use general aviation airport located at 1669 Airport Road, Inyokern, California, with an airport elevation of 2,457 feet MSL. The airport encompasses ~1,640 acres and supports ~33,000 annual operations. The airport has three runways: Runway

The Project Site falls within the FAR Part 77 Horizontal Surface, which extends 5,000 feet from each runway end at a limiting elevation of 150 feet AGL, or 2,607 feet MSL. All Project structures are less than 35 feet above finished grade, placing them approximately 115 feet below the horizontal surface limit. The Project Site is not located on the approach centerline of any KIYK runway. The ALUCP places the Project Site in Zone C, the outer boundary of the Common Traffic Pattern Zone. The Project use (industrial data center, M-2 PD zoning) is consistent with Zone C compatibility standards, and the Project does not require a variance from County height limits. The full FAR Part 77 compliance analysis is provided in Table T-006. A formal ALUC consistency determination has been requested and will be submitted as a supplemental exhibit prior to CEC filing.



Transportation Facilities

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corridor connecting Inyokern and Ridgecrest, with a transit hub at 1401 3rd Street, Inyokern (~0.4 mile south of the Project Site) and a bus stop on SR-178 adjacent to the Project access driveway.

No active or planned rail lines, designated bicycle trails, or canals are present within the Project area. An existing natural gas distribution pipeline is located within the SR-178 right-of-way; the Project would not cross or interact with this pipeline. Two proposed overhead 115 kV subtransmission lines (Route 1: ~8,000 LF; Route 2: ~4,000 LF preferred, per SCE MOS174) from the Project's northeast corner to the Southern California Edison (SCE) Point of Interconnection (POI), ~0.5 mile east near US-395, is identified in Figure T-4 as a planned linear facility with no surface transportation impact.

Roadway-specific characteristics for each facility are provided in Table T-001 through Table T-003 below.

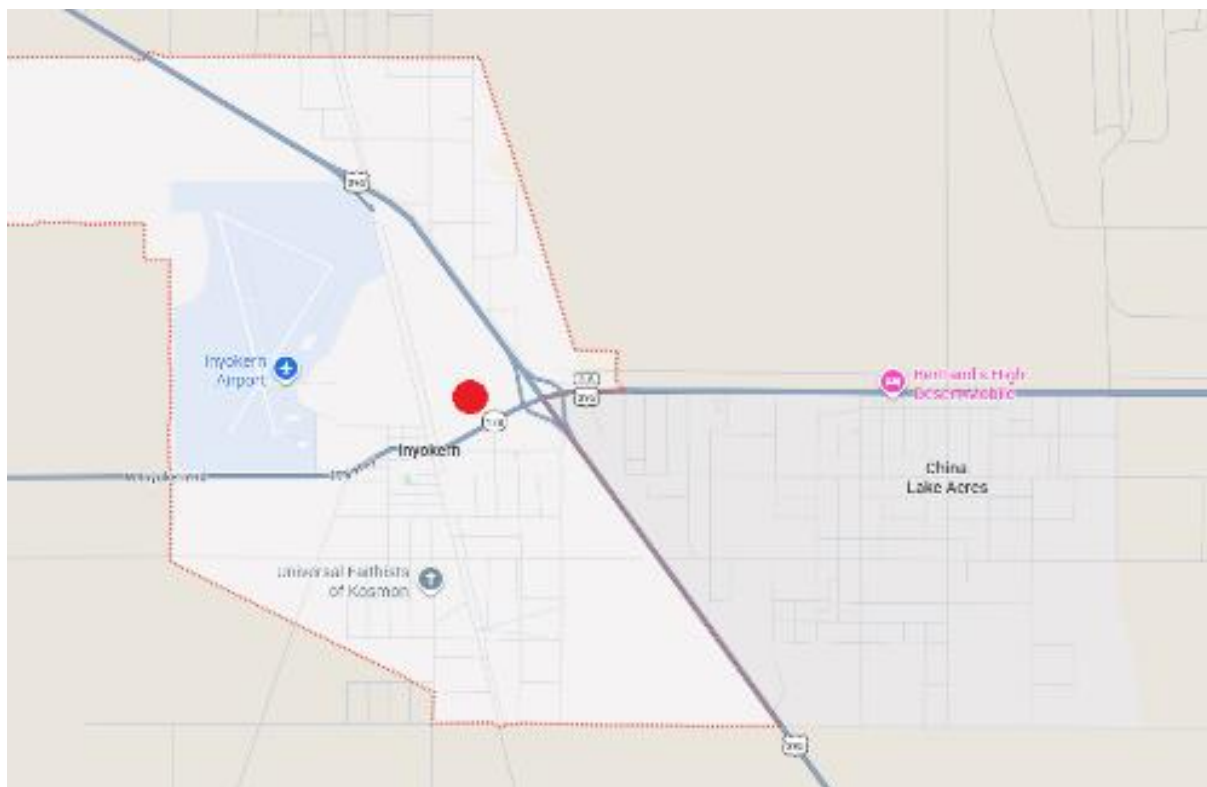


Figure T-4: Transportation Facility Inventory Map

Table T-001: Roadway Classification, Capacity, Traffic Volumes, and Safety Features

Appendix B §(g)(5)(D)(i), (ii), (iv), (vi)

Road	Classification	Lanes / Speed	Design Capacity (vpd)	Est. AADT	Est. Peak Hour (vpd)	Weight Limit	Safety Features
SR-178 (W. Inyokern Rd)	State Highway (Caltrans D9)	2 / 55 mph	~10,000	~3,300–3,500*	~350	80,000 lbs GVW; oversize permit req.	Paved shoulders 4–6 ft; adequate sight distance at site driveway; no at-grade rail crossing; Caltrans rehab project (2030) to include Class II bike lanes
US Route 395	US Highway (Caltrans D9)	2 / 65 mph	~17,000	~9,000	~900	80,000 lbs GVW; oversize permit req.	Paved shoulders; passing lanes; no at-grade rail in project vicinity; primary regional freight corridor
Brown Road	Kern County Road	2 / 25–35 mph	~2,000	~200	~20	Legal loads	Partially paved shoulder; rural character; adequate for secondary and emergency project access

Airport Road	Local Road	2 / 25 mph	~500	~50	~10	Legal loads	No formal shoulder; low volume; serves KIYK airport access

* SR-178 AADT based on Caltrans Traffic Census Program data cited in Appendix H.1 (~3,300 vpd). Engineering estimate in Figure T-4 is ~3,500 vpd. AADT for US-395, Brown Road, and Airport Road reflect engineering estimates based on Caltrans District 9 rural highway characteristics; to be confirmed against current Caltrans count data prior to final CEC application filing.

Table T-002: Passenger Vehicle / Truck Mix by Phase

Appendix B §(g)(5)(D)(v)

Road	Baseline Truck %	Construction Truck % (Peak)	Operations Truck %	Notes
SR-178	5–8%	15–25% (project-generated)	3–5% (fuel, vendors)	Baseline to be verified against current Caltrans truck census data prior to CEC filing. Construction peak reflects concrete, structural steel, equipment, and fuel deliveries. Oversize loads via Caltrans Special Transportation Permit.
US-395	10–15%	12–17% (marginal increase)	10–15% (no change)	Primary regional freight corridor. Project construction increment minimal relative to existing truck volume.
Brown Road	<5%	5–10%	<5%	Low-volume secondary and emergency access only. Minimal impact from Project traffic.

Source: Transportation Facility Inventory Map, Figure T-4; Appendix H.1, Trip Generation and VMT Analysis.

Table T-003: Level of Service Screening

Appendix B §(g)(5)(D)(iii) | HCM 7th Edition V/C Screening for 2-Lane Rural Highways | LOS Thresholds: $A \leq 0.35$ | $B \leq 0.54$ | $C \leq 0.70$ | $D \leq 0.85$

Road / Location	Existing LOS (est.)	Construction LOS (Peak)	Operations LOS	V/C Delta	Notes
SR-178 at site driveway	C (V/C ~0.35)	C-D (V/C ~0.38)	C (V/C ~0.36)	+0.03	Construction adds ~267 ADT; increment <3% of 10,000-vpd design capacity. No LOS degradation below D. Turning movement analysis at driveway to be conducted during final design.
SR-178 / US-395 intersection	B	B-C	B	<0.02	Low peak-hour volumes at rural intersection. No signal warranted. Right-turn deceleration lane on SR-178 to be evaluated during final design.
US-395 (regional)	B (V/C ~0.45)	B-C (V/C ~0.47)	B (V/C ~0.46)	<0.02	Project increment de minimis relative to existing regional highway volumes.
Brown Road	A	A-B	A	Minimal	Secondary and emergency access only. Minimal construction and operations impact.

Project trip generation does not exceed the Kern County 50-trip peak-hour threshold for level of service analysis; therefore, no formal LOS analysis is required. The V/C screening above confirms that all study roadways remain at acceptable service levels through both construction and operations.

4.16.2 Regulatory Setting

Federal

Federal Aviation Administration (FAA)

The FAA regulates aviation at regional, public, and private airports. The FAA regulates objects affecting navigable airspace. According to the Federal Aviation Regulation Part 77 (14 CFR Part 77 — Safe, Efficient Use, and Preservation of the Navigable Airspace) any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA of:

- Any construction or alteration exceeding 200 feet above ground level;
- Any construction or alteration:
 - Within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway where the longest airport runway exceeds 3,200 feet in actual length;
 - Within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway where the longest airport runway is less than 3,200 feet in actual length; and
 - Within 5,000 feet of a public use heliport which exceeds a 25:1 surface;
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed the above standards;
- When requested by the FAA; and
- Any construction or alteration located on a public use airport or heliport regardless of height or location.

Failure to comply with the provisions of Federal Aviation Regulation Part 77 is subject to civil penalty under Section 902 of the Federal Aviation Act of 1958, as amended, and pursuant to 49 United States Code Section 46301(a).

U.S. Department of Transportation (DOT)

Hazardous materials (HazMat) transportation in the U.S. is regulated by the DOT under Title 49 CFR Parts 100-185, primarily managed by the Pipeline and Hazardous Materials Safety Administration (PHMSA). These regulations ensure safe transport across all modes, focusing on classification, packaging, marking, labeling, shipping papers, and training.

State

California Department of Transportation

The California Department of Transportation (Caltrans) has jurisdiction over State highways and sets maximum load limits for trucks and safety requirements for oversized vehicles that operate on highways. Eastern Kern County (i.e., including the project site and surrounding area) has been under the jurisdiction of Caltrans District 9 as of November 2015; prior to that time, all of Kern County was under the jurisdiction of Caltrans District 6. The following Caltrans regulations apply to potential transportation and traffic impacts of the project:

- (a) California Vehicle Code, Division 15, Chapters 1 through 5 (Size, Weight, and Load). Includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways.
- (b) California Street and Highway Code, Sections 660-711, 670-695. Requires permits from Caltrans for any roadway encroachment during truck transportation and delivery, includes regulations for the care and protection of State and county highways and provisions for the issuance of written permits, and requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.
- (c) Project Development Procedures Manual, Chapter 27: Access Control Modification. Requires Caltrans approval of proposed connections to a public road through submittal of a proposal to Caltrans (Caltrans, 2016).

Senate Bill 743

Senate Bill (SB) 743 was signed into law in September 2013 and included several changes to CEQA for projects located in areas served by transit (for example, transit-oriented development). Most significantly, SB 743 changed the way that transportation impacts are analyzed under CEQA by removing traffic congestion (auto delay) as an “environmental impact” requiring analysis in CEQA environmental documents and replacing it with a requirement to evaluate VMT. VMT is a measure of the total number of miles driven to or from a development project site; is used as a surrogate for evaluating certain transportation-related greenhouse gas emissions that contribute to anthropogenic induced climate change; and is intended to promote the development of multimodal transportation networks and a diversity of land uses that are strategically located to reduce reliance on single passenger automobile trips as a primary form of transportation.

In order to facilitate the evaluation of VMT-related impacts in CEQA environmental documents, SB 743 directed the California Natural Resources Agency to amend the CEQA Guidelines by excluding LOS and auto delay when evaluating transportation impacts and provide criteria for the evaluation of VMT-related impacts. The CEQA Guidelines amendments were preceded by the Governor’s Office of Land Use and Climate Innovation’s (LCI’s) (formerly the Office of Planning and Research [OPR]) publication of recommendations that are set forth in the Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA (OPR 2016).

Based, in part, on these recommendations, in December 2018, the California Natural Resources Agency adopted the amendments to the State CEQA Guidelines which are set forth in Section 15064.3(b). Following the adoption of the amendments to the State CEQA Guidelines, LCI published the Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018) which provides further guidance regarding the analysis of VMT-related impacts.

To provide further guidance regarding SB 743 implementation, Caltrans replaced the Guide for the Preparation of Traffic Impact Studies (Caltrans 2002) with the Caltrans Transportation Impact Study Guide (Caltrans 2020a). Per the 2020 Transportation Impact Study Guide and consistent with SB 743, Caltrans now focuses on VMT rather than LOS as the metric used in CEQA

transportation analyses. Caltrans recommends use of LCI's recommended thresholds and guidance on methods of VMT assessment found in LCI's Technical Advisory on Evaluating Transportation Impacts in CEQA. In addition to VMT, Caltrans has developed an Interim Land Development and Intergovernmental Review Safety Review Practitioners Guidance (July 2020) which provides direction regarding targeted operational and safety analyses to address specific geometric or operational considerations related to the State Highway System and connections with the State Highway System.

In summary, LCI's published guidance recommends use of automobile VMT per capita as the preferred CEQA transportation metric, along with the elimination of automobile delay/LOS for CEQA purposes statewide. Although LOS or similar measures of traffic congestion or vehicular capacity were removed from consideration pursuant to CEQA, SB 743 does not prevent a lead agency from continuing to analyze delay or LOS as part of other plans (for example, a general plan), fee programs, or ongoing network monitoring, so long as the LOS analysis is not a basis for challenging the legal adequacy of an EIR under CEQA (*Citizens for Positive Growth & Preservation v City of Sacramento* (2019) 43 C5th 609, 624). Given that the Kern County General Plan (Circulation Element) includes policies that require maintaining an acceptable LOS for County roadways and intersections, an analysis of LOS-related impacts is provided below to inform the analysis of proposed Project consistency with the KCGP.

California Environmental Quality Act / CEQA Guidelines Section 15064.3

Transportation planning and impact analysis for the Project are governed by the California Environmental Quality Act (CEQA; Public Resources Code §21000 et seq.), including CEQA Guidelines Appendix G and CEQA Guidelines Section 15064.3, which, as discussed above, requires evaluation of transportation impacts based on vehicle miles traveled (VMT) rather than level of service in most circumstances. Senate Bill 743 (2013) directed the Governor's Office of Planning and Research (OPR) to develop VMT-based significance criteria, which were incorporated into the CEQA Guidelines effective July 1, 2020.

CEC SPPE Appendix B, Section (g)(5)

CEC SPPE Appendix B, Section (g)(5)(A) through (F) (20 CCR Division 2, Chapter 5, Appendix B) requires the Applicant to provide information regarding the regional transportation setting, airport and airspace considerations, VMT, the transportation facilities inventory, project traffic and roadway effects, and hazardous materials transportation. All Section (g)(5) requirements are addressed in this chapter; the Appendix B supplemental disclosure is provided in Section 4.16.5.

Local

Kern Council of Governments 2022 Regional Transportation Plan/Sustainable

Communities Strategy

The current Regional Transportation Plan (RTP) was prepared by the Kern Council of Governments (Kern COG) and was adopted by the Kern COG Board of Directors on July 21, 2022 (Kern COG, 2022). The 2022 RTP/SCS is a long-range (24-year) blueprint that establishes a set

of regional transportation goals, policies, and actions intended to guide development of the planned multimodal transportation systems in Kern County through 2046. It was developed through a continuing, comprehensive, and cooperative planning process spanning January 2019 through February 2022, and provides for effective coordination between local, regional, State, and federal agencies. The 2022 RTP/SCS supersedes the prior 2018 RTP/SCS, which was adopted on August 16, 2018 and served as the governing plan during the prior planning cycle.

Included in the 2022 RTP is the Sustainable Communities Strategy (SCS), which is required by California's Sustainable Communities and Climate Protection Act (Senate Bill 375). The California Air Resources Board (CARB) sets Kern region greenhouse gas (GHG) emissions reduction targets for passenger vehicles and light-duty trucks; the 2022 RTP/SCS is designed to achieve these targets. SB 375 provides for closer integration of the RTP/SCS with the Regional Housing Needs Allocation (RHNA), ensuring consistency between housing needs and transportation planning. The 2022 RTP/SCS financial plan identifies available funding from local, State, and federal sources to support the region's transportation investments over the 24-year planning horizon (Kern COG, 2022).

Kern County Airport Land Use Compatibility Plan

The Kern County Airport Land Use Compatibility Plan (ALUCP) establishes procedures and criteria to assist Kern County and affected incorporated cities in addressing compatibility issues for the proposed project regarding airports and the land uses around them. The Inyokern Airport is located approximately 0.9 mile southeast of the Project Site. The China Lake Naval Air Weapons Station is located approximately 8 miles from the project site. The nearest private airstrip is Ridgecrest Community Hospital Heliport located approximately 8 miles east of the project site. Due to the project's distance from the nearest airport, the project site is located within the boundaries of the Inyokern Airport Influence Area as identified in the Kern County ALUCP.

The Kern County Airport Land Use Compatibility Plan (County of Kern, 2011) establishes height, land use compatibility, and safety zone criteria for projects within the Inyokern Airport influence area. As shown in Figure 4-1 of the Thermal Plume Analysis (Appendix E.4), the Project Site is located in Zone C, the outer boundary of the Common Traffic Pattern Zone, an area where aircraft are commonly below 1,000 feet above ground. Zone C is the least restrictive compatibility zone and permits industrial and commercial land uses consistent with the Project's M-2 PD zoning designation. The Project does not require a variance from County height limits and does not require FAA review; the Project conforms with applicable ALUCP policies. A formal ALUC consistency determination has been requested and will be submitted as a supplemental exhibit prior to CEC filing, consistent with MM 4.16-4.

Kern County General Plan

The Project site is located within an area that is subject to the General Plan and, consequently, applicable goals, policies, and implementation measures. The Land Use Element, Circulation Element, and the Circulation Element of the General Plan include goals, policies, and implementation measures related to transportation and traffic that apply to the proposed Project, as described below.

Chapter 1. Land Use Element; 1.5 Special Treatment Areas

Goal 1: To recognize the validity of existing Specific Plan and Rural Community Plan decisions and to identify areas for which similar detailed planning efforts should be undertaken in the future to as to best meet the needs and concerns of local residents.

Policy 1: Rural communities are historically identifiable small-scale non-urban settlements located in outlying areas of the County which contain a mixture of residential and supportive commercial and other uses serving the community and the surrounding rural population. The County will ensure that the unique character of these communities is preserved and enhanced by recognizing the scale, density, size, and composition of development as summarized in Appendix B General Plan.

Policy 5: Specific Plan Areas guidelines shall be used to ensure adequate consideration of the General Plan goals and policies governing development and resource management. The guidelines are presented in Appendix C of the General Plan.

Measure A: Where particular policies or standards are not addressed within a Special Treatment Area, the provisions of the Kern County General Plan shall govern.

Kern County General Plan — Circulation Element

The policies, goals, and implementation measures in the Kern County General Plan Circulation Element for traffic and transportation that are applicable to the project are provided below. The Kern County General Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference. The design level-of-service (LOS) for Kern County is LOS C. The minimum LOS for conformance with the Kern County General Plan is LOS D.

Goal 4: Kern County will plan for a reduction of environmental effects without accepting a lower quality of life in the process.

Goal 5: Maintain a minimum [level of service] LOS D for all roads throughout the County.

Highway Plan (2.3.3)

Goal 5: Maintain a minimum LOS D.

Policy 1: Development of roads within the County shall be in accordance with the Circulation Diagram Map. The charted roads are usually on section and midsection lines. This is because the road centerline can be determined by an existing survey.

Policy 2: This plan requires, as a minimum, construction of local road widths in areas where the traffic model estimates little growth through and beyond 2010. Where the Kern County Planning and Natural Resources Department's growth estimates indicate more than a local road is required, expanded facilities shall be provided. The timing and scope of required facilities should be set up and implemented through the Kern County Land Division Ordinance. However, the County shall routinely protect all

surveyed section lines in the Valley and Desert regions for arterial right-of-way. The County shall routinely protect all midsection lines for collector highways in the same regions. The only possible exceptions shall be where the County adopts special studies and where Map Code 4.1 (Accepted County Plan) areas occur. In the Mountain Region where terrain does not allow construction on surveyed section and midsection lines, right-of-way width shall be the size shown on the diagram map. No surveyed section and midsection “grid” will comprehensively apply to the Mountain Region.

Policy 3: This plan’s road-width standards are listed below. These standards do not include state highway widths that would require additional right-of-way for rail transit, bike lanes, and other modes of transportation. Kern County shall consider these modifications on a case-by-case basis.

- Expressway [Four Travel Lanes] Minimum 110-foot right-of-way;
- Arterial [Major Highway] Minimum 110-foot right-of-way;
- Collector [Secondary Highway] Minimum 90-foot right-of-way;
- Commercial-Industrial Street Minimum 60-foot right-of-way; and
- Local Street [Select Local Road] Minimum 60-foot right-of-way.

Measure A: The Planning Department shall carry out the road network policies by using the Kern County Land Division Ordinance and Zoning Ordinance, which implements the Kern County Development Standards that includes road standards related to urban and rural planning requirements. These ordinances also regulate access points. Planning Department can help developers and property owners in identifying where planned circulation is to occur.

Future Growth (2.3.4)

Goal 1: To provide ample flexibility in this plan to allow for growth beyond the 20-year **planning horizon.**

Policy 2: The County should monitor development applications as they relate to traffic estimates developed for this plan. Mitigation is required if development causes affected roadways to fall below LOS D. Utilization of the California Environmental Quality Act (CEQA) process would help identify alternatives to or mitigation for such developments. Mitigation could involve amending the Land Use, Open Space, and Conservation Element to establish jobs/housing balance if projected trips in any traffic zone exceed trips identified for this Circulation Element. Mitigation could involve exactions to build offsite transportation facilities. These enhancements **would reduce traffic congestion to an acceptable level.**

Policy 4: As a condition of private development approval, developers shall build roads needed to access the existing road network. Developers shall build these roads to County standards unless improvements along State routes are necessary then roads

shall be built to California Department of Transportation (Caltrans) standards. Developers shall locate these roads (width to be determined by the Circulation Plan) along centerlines shown on the circulation diagram map unless otherwise authorized by an approved Specific Plan Line. Developers may build local roads along lines other than those on the circulation diagram map. Developers would negotiate necessary easements to allow this.

Policy 5: When there is a legal lot of record, improvement of access to County, city or State roads will require funding by sources other than the County. Funding could be by starting a local benefit assessment district or, depending on the size of a project, direct development impact fees.

Policy 6: The County may accept a developer's road into the County's maintained road system. This is at Kern County's discretion. Acceptance would occur after the developer follows the above requirements. Roads are included in the County Road maintenance system through approval by the Board of Supervisors.

Measure A: The County should relate traffic level to road capacity and development levels. To accomplish this, the Kern County Roads Department and the Kern County Planning and Natural Resources department should set up a monitoring program. This monitoring program would identify traffic volume to capacity ratios and resulting level of service. The geographic base of the program would be traffic zones set up by Kern Council of Governments.

Measure C: Project development shall comply with the requirements of the Kern County Zoning Ordinance, Land Division Ordinance, and Development Standards.

Vacation of Existing or Recorded Future Streets, Highways, or Public Easements (2.3.6)

Goal 2: Kern County intends to set up a system maintaining and coordinating road vacation procedures in all elements of the General Plan and the incorporated cities general plans.

Policy 1: A road vacation influencing the construction or operation of expressway, an arterials or collector highway may occur with, or after, amending this Element. Kern County will not vacate any public expressway, arterial or collector highway right-of-way without amendment to this Element. The County will need to amend the right-of way status to local or commercial-industrial streets.

Policy 2: A study, prepared at the applicant's expense, shall accompany the road vacation application. The study should provide information that will aid in finding the importance of the entire length of the right-of-way. The study would include a review of existing and proposed land uses and localized traffic modeling. This will help Kern County decide what corresponding changes are needed to the Land Use, Open Space and Conservation Element, or affected specific plan. This also will

help Kern County decide if additional public road services or other traffic management are required elsewhere.

- Policy 3:** If the road vacation applicant is a private entity, all costs for the public hearing shall be borne by the applicant. Also, costs associated with providing any necessary additional public road services or other traffic management caused by the road vacation shall be paid by the applicant.
- Policy 4:** The vacation of a road shall not take away legal access to adjacent properties or "landlock" any legal lot or parcel of record. Legal access shall be determined through a report submitted with the application for road vacation.
- Policy 5:** If Kern County determines that the right-of-way is not needed for circulation in the general area, a road vacation may be authorized. An acceptable project shall be determined through a report submitted with the road vacation application and in keeping with traffic modeling parameters of this Plan.
- Policy 6:** A road vacation may be authorized if physical conditions such as natural, or manmade topography prevent rational extension of the facility. Physical conditions affecting roadways shall be determined through a report submitted with the road vacation application.
- Policy 7:** A road vacation shall only affect public, recorded rights-of-way or public service easements. The potential effects of a road vacation upon rights-of-way and easements are to be determined by a report submitted with the road vacation application. A vacation of private access or private service easement is not under County jurisdiction. Kern County considers these matters "civil" actions. These civil actions should be acted upon accordingly.
- Policy 8:** A road vacation may be authorized if the right-of-way is not improved or used for its original purpose. Existing improvements and facility use shall be determined by a report submitted with the road vacation application.
- Policy 9:** A road vacation may be authorized to remove excess right-of-way caused by relocation, or at the beginning of a general plan amendment proceeding. Excess right-of-way shall be determined through a report submitted with the road vacation application.
- Policy 10:** A road vacation may be approved if there is an agreement to close a public street. A road vacation may be approved with acknowledgment of an impassable street. A road vacation may be approved with a land division map over the area of vacation if the project has comparable methods of vehicular access.
- Policy 11:** A road vacation procedure may be used for considering public service easement or utility service easement abandonments. The procedure is the same as any public right-of-way vacation.

- Policy 12:** A vacation of improved road right-of-way, or public service easement, should not occur until the lead agency makes findings. One important finding is the land is no longer needed for public use. A vacation of improved road right-of-way, or public service easement, should not occur until the right-of-way is superseded by relocation, and improved to acceptable Kern County Development Standards. The Board of Supervisors shall have accepted the replacement facility into the maintained road system.
- Policy 13:** A general vacation proceeding (consistent with State of California Streets and Highway Code) will require a public hearing when the vacation affects existing in place facilities or is a project caused by relocating right-of-way.
- Policy 14:** A summary vacation shall be consistent with State of California Streets and Highway Code. A summary vacation may be used when the right-of-way does not exist, is unused, or moved. A summary vacation may be used where right-of-way is impassable, unnecessary for present or prospective public use, or is excess or public service easement land.
- Measure A:** Kern County should require a research fee to determine if a complex vacation application is acceptable.
- Measure B:** In resolving a vacation request, the Board of Supervisors will follow the policies and laws applicable to such vacation request. Before taking final action, the Board of Supervisors may require the applicant to submit additional study(s). Staff shall oversee the applicant's information gathering process and suggest alternatives if necessary.
- Measure C:** The Planning Department shall issue guidelines for applicants to use in the preparation of road vacation applications and attendant reports.

Congestion Management Programs (2.3.10)

State law requires that urbanized counties prepare an annual congestion management program (CMP). City and county eligibility for new gas tax subventions is contingent upon their participation in the congestion management program. To qualify for funding provided through the State Transportation Improvement Program (STIP) or the Federal Transportation Improvement Program (FTIP), the regional transportation agency must keep current a Regional Transportation Program (RTP) that contains the CMP. Also, the CMP offers local jurisdictions the opportunity to find cooperative solutions to the multi-jurisdictional problems of air pollution and traffic congestion.

The CMP has links with air quality requirements. The California Clean Air Act requires that cities and counties implement transportation control measures (TCMs) to attain, and maintain, the State air quality standard.

- Goal 1:** To satisfy the trip reduction and travel demand requirements of the Kern Council of Government's Congestion Management Program.

- Goal 2:** To coordinate congestion management and air quality requirements and avoid multiple and conflicting requirements.
- Policy 1:** Pursuant to California Government Code 65089(a), Kern County has designated Kern Council of Governments as the County's Congestion Management Agency (CMA).
- Policy 2:** The Congestion Management Agency is responsible for developing, adopting, and annually updating a Congestion Management Plan. The Plan is to be developed in consultation with, and with the cooperation of, the regional transportation agency (also Kern Council of Governments), regional transportation providers, local governments, Caltrans, and the air pollution control district.
- Measure A:** Kern County Council of Governments should request the proper consultation from County of Kern to develop and update the proper congestion management program.
- Measure B:** The elements within the Kern Congestion Management Program are to be implemented by each incorporated city and the County of Kern. Specifically, the land use analysis program, including the preparation and adoption of deficiency plans is required. Additionally, the adoption of trip reduction and travel demand strategies are required in the Congestion Management Program.

Trucks and Highways (2.5.1)

The Kern County road network handles a high ratio of heavy truck traffic. State highways carry most of this traffic. Most of the trucks are interstate carriers. As such, interstate trucking is not under the direct control of County officials. In as much as this traffic affects County residents and taxpayers, they need actions to guarantee State highways in Kern County receive a fair share of California's transportation investment.

- Goal 1:** Provide for Kern County's heavy truck transportation in the safest way possible.
- Goal 2:** Reduce potential overweight trucks.
- Goal 3:** Use State Highway System improvements to prevent truck traffic in neighborhoods.
- Policy 1:** California Department of Transportation (Caltrans) should be made aware of the heavy truck activity on Kern County's roads.
- Policy 2:** Start a program that monitors truck traffic operations.
- Policy 3:** Promote a monitoring program of truck lane pavement condition.

Transportation of Hazardous Materials (2.5.4)

- Goal 1:** Reduce risk to public health from transportation of hazardous materials.

Policy 1: The commercial transportation of hazardous material, identification and designation of appropriate shipping routes will be in conformance with the adopted Kern County and Incorporated Cities Hazardous Waste Management Plan.

Policy 2: Kern County and affected cities should reduce use of County-maintained roads and city maintained streets for transportation of hazardous materials.

Safety Element Chapter 4.)

Goal 5: Ensure the availability and effective response of emergency services following a catastrophic event.

Policy 4: The County shall encourage extra precautions be taken for the design of significant lifeline installations, such as highways, utilities, and petrochemical pipelines.

Measure A: All hazards (geologic, fire, and flood) should be considered whenever a Planning Commission or Board of Supervisor's action could involve the establishment of a land use activity susceptible to such hazards.

Measure F: The adopted multi-jurisdictional Kern County, California Multi-Hazard Mitigation Plan, as approved by FEMA, shall be used as a source document for preparation of environmental documents pursuant to CEQA, evaluation of project proposals, formulation of potential mitigation, and identification of specific actions that could, if implemented, mitigate impacts from future disasters and other threats to public safety.

Wildland and Urban Fire (4.6)

Goal 1: Minimize injuries and loss of life and reduce property damage.

Goal 2: Reduce economic and social disruption resulting from earthquakes, fire, flooding, and other geologic hazards by assuring the continuity of vital emergency public services and functions.

Policy 1: Require discretionary projects to assess impacts on emergency services and facilities.

Policy 6: All discretionary projects shall comply with the adopted Fire Code and the requirements of the Fire Department.

Measure A: Require that all development comply with the requirements of the Kern County Fire Department or other appropriate agency regarding access, fire flows, and fire protection facilities.

Measure B: The provision of an adequate water supply for fire fighting purposes should be encouraged for all housing areas where an inadequate supply now exists.

Inyokern Specific Plan

The entire project site is subject to the provisions of the Inyokern Specific Plan, which contains goals, policies, and standards that are compatible with those of the Kern County General Plan, but are unique to the specific needs of the of the Inyokern Area. The Circulation Element of the Inyokern Specific Plan has the purpose of identifying roadway networks, providing guidance to promote smooth traffic flow, and promoting adequate road improvements. The goals, policies, and implementation measures in the Inyokern Specific Plan related to transportation and traffic as applicable to the project are provided below. The Inyokern Specific Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

The project proposes to amend the Inyokern Specific Plan Circulation Element to remove a portion of the designated, but not constructed, future secondary collector from the eastern portion of the Project Site to the project boundary. Figure 1-3 (Site Plan/Site and Surrounding Parcels Map) in Section 1.13, Summary Figures and Exhibits, depicts the proposed amendment to the Inyokern Specific Plan Circulation Element. The amendment proposes to remove the designated but not yet constructed future secondary collector and associated 90-foot right-of-way reservation from the eastern portion of the Project Site. As stated in the Specific Plan Amendment application, this road reservation will never be constructed due to existing development to the north, Navy-owned property constraints, and the proposed data center use to the south. The following standards apply to the Project Site:

Land Use, Open Space, and Conservation Element

Industrial (1.5)

Goal 1: To provide adequate industrial land to serve the immediate area.

Goal 2: To balance industrial and residential use so that residences are not adversely affected.

Goal 3: To promote economic strength without detriment to environmental quality.

Measure 4: All new industrial subdivisions and, where applicable, PD (Precise Development) plans shall include provisions for standard street access, alleys where necessary, and sewer and water connections to the Inyokern CSD.

Circulation Element (Chapter 2)

- Goal 1:** To provide a simple network of local collector roads consistent with County circulation policy, and to amend the Circulation Element, where necessary, to eliminate unnecessary major and secondary highway alignments.
- Goal 2:** To promote smooth traffic flow and to avoid piecemeal road development.
- Goal 3:** To promote adequate road improvement standards for all new development.
- Policy 1:** When development occurs, street rights-of-way shall be dedicated to the County in accordance with all applicable County ordinances.
- Policy 3:** Where necessary, 60-foot industrial streets should be required to serve projected industrial uses.
- Policy 5:** Development which incorporates adequate circulation systems shall be encouraged.
- Measure 1:** As a requirement for Precise Development Plans, Conditional Use Permits, land divisions, and site plan reviews, streets shall be improved in accordance with the Kern County Land Division Ordinance.
- Measure 2:** The developer shall be responsible for the construction of street improvements in accordance with the Kern County Subdivision Ordinance.
- Measure 3:** Roadways serving commercial and industrial developments shall be constructed to 60-foot street standards, as set forth in the Kern County Land Division Ordinance, excepting those areas fronting on a major highway alignment or secondary collector requiring a 90-foot or 100-foot right-of-way.
- Measure 4:** Development roadways shall be in substantial conformity with the Circulation Plan contained in Figure 5 of this Plan.

Kern County Division Nine: Standards for Traffic Engineering

Traffic impact significance thresholds are established by the Kern County Division Nine: Standards for Traffic Engineering, which requires level of service analysis when a project generates 50 or more trips in the peak hour. Division Nine is part of the County's Development Standards administered by the Kern County Public Works Department dictates the design requirements for public works, infrastructure, and traffic management in unincorporated areas. These mandatory standards cover streets, drainage, and construction, ensuring safety and functionality in new or reconstructed developments. As discussed in Section 4.16.3, the Project does not exceed this threshold during construction or operation.

Kern County Airport Land Use Compatibility Plan (ALUCP) — Inyokern Airport

The ALUCP establishes height, land use compatibility, and safety zone criteria for projects within the Inyokern Airport influence area. The Project Site is located in ALUCP Zone C, the outer boundary of the Common Traffic Pattern Zone. The Project use is consistent with Zone C compatibility standards. If any structure height increases above 35 feet AGL during final design, the Applicant shall file FAA Form 7460-1 for the affected component(s) and provide written confirmation of the FAA determination to the CEC and to the Kern County Planning and Natural Resources Department prior to commencement of construction of the affected component per MM 4.16-4

4.16.3 Impacts and Mitigation Measures

Methodology

The transportation and traffic impact analysis evaluates:

1. existing transportation conditions and service levels in the Project vicinity based on available Caltrans traffic census data and engineering estimates for local roads;
2. whether the existing roadway network can adequately serve the Project's construction and operational traffic without degrading levels of service below acceptable thresholds; and
3. whether new or expanded transportation facilities or mitigation measures would be required.

The analysis applies the CEQA Guidelines Section 15064.3 VMT-based significance framework as the principal significance determination, supplemented by V/C screening under the HCM 7th Edition methodology for rural two-lane highways.

Trip generation estimates are based on the Trip Generation and Vehicle Miles Traveled Analysis (Appendix H.1), prepared by Provost & Pritchard / Ruettggers & Schuler Civil Engineers (January 2026), using the Kern COG Travel Demand Model Traffic Analysis Zone (TAZ) data and OPR Technical Advisory (December 2018) methodology.

The analysis draws from the Project Description (Section 3), Transportation Facility Inventory Map (Figure T-4), Airport Proximity Map (Figure T-2), Emergency Route and Public Services Map (Appendix B, Section (g)(7)), Sensitive Receptor Map (Appendix B, Section (g)(10)(B)), Trip Generation and Vehicle Miles Traveled Analysis (Appendix H.1), and Thermal Plume Analysis (Appendix E.4). This section also references Section 4.9 (Hazards and Hazardous Materials) for consistency with the hazardous materials transportation discussion.

Thresholds of Significance

Consistent with the CEQA Guidelines Appendix G Environmental Checklist Form, a transportation impact would be significant if the Project would:

- a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, or pedestrian facilities;
- b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- c. Substantially increase hazards due to a geometric design feature or incompatible uses; or
- d. Result in inadequate emergency access.

Impact 4.16-1: Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, or pedestrian facilities

Designated State Scenic Highways: As more particularly described in the Aesthetics discussion (Section 4.1), according to the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, there are no Designated State Scenic Highways within Kern County (see Aesthetics, Section 4.1.3, Regulatory Setting, for more information on the State Scenic Highway Mapping System). The closest Eligible Scenic Highways are SR-14 (portion north of Business East Route 58) located approximately 3.7 miles to the west of the project site and Business East Route 58 (portion east of SR-14) located 43.2 miles south of the project site (Caltrans, 2017). Therefore, impacts regarding designated and eligible state scenic highways would be less than significant.

Non-Motorized (“Active”) Transportation under the 2018 Kern Region Active Transportation Plan (ATP) and Kern County General Plan Circulation Element: The community of Inyokern is treated as part of the general unincorporated area plans of the ATP not part of the special focus areas for bicycling or pedestrian walkway facilities. There are two Class III bicycle facilities in the immediate vicinity of the project site, which are located on SR-178 between SR-14 and Brown Road and on Brown Road between US 395 and South China Lake Boulevard. Pedestrian walkways proximate to the Project Site consists of unimproved, dirt pathways along paved roadways. Therefore, impacts regarding non-motorized transit, bicycle, and/or pedestrian facilities would be less than significant.

Public Transportation: Both temporary construction and permanent operations and maintenance workers will have access to the Regional Transit System. The nearest bus stop providing access to Route 227 is located adjacent to the project site on SR-178 between Reeves Avenue and West Graaf Avenue. The nearest bus stop providing access to Route 230 is located approximately 350 feet west of the project site on SR-178 at Broadway. There is no direct access to the regional railway system. Therefore, impacts regarding public transportation and railway facilities would be less than significant.

Kern County Airport Land Use Compatibility Plan (ALUCP) — Inyokern Airport: The ALUCP establishes height, land use compatibility, and safety zone criteria for projects within the Inyokern Airport influence area. The Project Site is located in ALUCP Zone C, the outer boundary of the Common Traffic Pattern Zone. The Project use is consistent with Zone C compatibility standards.

Kern Council of Governments 2022 Regional Transportation Plan/Sustainable Communities Strategy: Kern COG does not have jurisdiction over land use planning, however, the 2022 RTP/SCS sets forth general policies/actions which apply to certain types of development and are intended to achieve the RTP/SCS's highest goal to facilitate mobility. The proposed Project involves changes including the vacation of roadways and easements and the construction of access driveways connecting to public roads and increases in traffic during construction and operations and maintenance phases to the Kern County roadway network, which combined could affect Kern COG's ability to achieve the goals set forth in the 2022 RTP/SCS. The following provides an analysis of the proposed Project's consistency with applicable, policies/actions set forth in the 2022 RTP/SCS.

Table 4.16-1 Proposed Project Consistency with Applicable Policies/ Actions of the Kern COG 2022 RTP/SCS

Policy/Action	Project Consistency
4—Enhance and connect existing and future bikeways and pedestrian walkways in the Kern Region including disadvantaged communities ¹ .	Consistent. The Project site is not located within an area that includes designated SB 535 (2012) DACs (California Office of Environmental Health Hazard Assessment 2022). The Project site is located within a rural area of the unincorporated area of Kern County and does not include existing or planned bikeways and/or pedestrian walkways with which the proposed Project could interfere.
5—Encourage ... Kern COG member jurisdictions to update and implement their adopted local bicycle plans and to incorporate bicycle facilities into local transportation projects.	
15.3—Maintain and enhance existing roadway infrastructure and vehicles with emerging technology to provide for more efficient use and reduce emissions, including electrification and clean fuel technology.	Consistent. Prior to constructing driveways that afford access from public roadways to the Project site, the Project proponent would be required to obtain an Encroachment Permit, thereby confirming that the driveway access points do not interfere with any roadway infrastructure that may be planned for the public roadways for the purpose of achieving the objectives of this Policy/Action 15.3. Further, the proposed Project would generate renewable solar energy from the proposed solar rooftop and solar carport elements that may be made available to operations and maintenance staff.

27.8—Encourage cities and the county to provide parking requirements (and parking provisions) compatible with compact, pedestrian, and transit-supportive design and development. Requirements should account for mixed uses, transit access, and the linking of trips that reduce reliance on automobiles and total parking demand.	Consistent. As described above, the majority of proposed Project-related traffic would occur during the construction and decommissioning phases of the proposed Project. Given that these trips would be temporary, the proposed Project does not include the construction of permanent parking areas to accommodate the vehicles associated with these construction related trips. Further, the proposed Project is estimated to involve 30-60 full-time employees during operation and includes parking areas that are sized to accommodate the number and types of vehicles that employees are likely to use to access the Project site. Public transit bus services provided by Kern Regional Transit are located adjacent to the Project Site.
Policy/Action	Project Consistency
28—Encourage land use planning by Kern COG local Government member agencies that recognizes Kern's large area, dispersed centers and unique geographic features of the region.	Consistent. The Project site is located in a rural area that involves industrial zoned properties of sufficient size to accommodate Project. Given electrical, water, and fiber optic infrastructure to accommodate the proposed Project, there are limited alternative locations in an urban area that provide multimodal forms of transportation.
32—Achieve national and state air quality standards for healthy air by the mandated deadlines for all communities and especially disadvantaged communities.	Consistent. As described in Section 4.3, Air Quality, construction activities of the proposed Project have the potential to exceed standards for NOx and particulate matter (PM10), thereby resulting in potentially significant impacts. However, with the implementation of the recommended mitigation measures the proposed Project would not exceed the applicable standards and impacts would be less than significant. Moreover, the Project site is not located within an area that includes designated SB 535 (2012) DACs (California Office of Environmental Health Hazard Assessment 2022).
32.5—During the project level environmental process perform local hot spot analysis of air pollution in accordance with the proscribed federal process to identify which communities may be impacted by proposed transportation projects.	Consistent. The Project site is not located within a designated DAC. The Project does not involve development of a new transportation facility and therefore is not subject to the federal hot spot analysis process under 40 CFR Part 93. As described in Section 4.3, Air Quality, the Project's construction and operational emissions are below applicable

33.1—Avoid, minimize, and/or mitigate disproportionately high and adverse human health or environmental effects, including social and economic impacts, on traditionally disadvantaged communities, especially racial minority and low-income communities.	significance thresholds. The Project's traffic contribution — approximately 267 average daily trips during construction and 241 average daily trips during operations — does not create a localized concentration of criteria pollutants at any intersection or roadway segment in the regional network. As discussed in this section, the Project's traffic and VMT impacts are below county thresholds of significance.

Note: State legislation gives CalEPA the responsibility for designating disadvantaged communities in order to improve the public health, quality of life, and economic opportunity in California's most historically disinvested communities. CalEPA determines these designations based on various criteria including pollution burden and socioeconomic factors that are collectively used to calculate overall scores by census tract generated by CalEnviroScreen 4.0.

Construction

During construction, the Project would generate ~267 average daily trips, including ~40 AM peak-hour trips and ~40 PM peak-hour trips. This level of trip generation does not exceed the Kern County 50-trip peak-hour threshold for formal level of service analysis.

Construction is anticipated to begin in 2027 and will require approximately 48 months to complete (three years). Depending on the construction schedule, the daily workforce will peak at 600 construction personnel. On average, there will be 150-200 construction personnel on site daily, with vehicle trips arriving and departing throughout the workday. It is anticipated that construction personnel will carpool to and from the project site, so a carpool factor of 1.5 was applied to the average daily traffic. It is also anticipated that approximately 30% of the average daily vehicle trips will occur during the AM and PM peak hours. Table 1 shows the calculations for the construction traffic based on the above information and assumptions.

Table 4.16-2 (Restated from Table 1 of Trip Generation Analysis, Appendix H.1)

Traffic Type	Variable (Personnel)	ADT*	AM Peak Hour		PM Peak Hour	
			Trips		Trips	
			In	Out	In	Out
Construction Personnel	200		Trips	Trips	Trips	Trips
			250%	50%	50%	250%
			22	7	7	22

Carpool factor of 1.5 applied.

As shown in the above table, the construction phase is anticipated to generate 267 daily trips, 40 AM peak hour trips and 40 PM peak hour trips. Per the Kern County Division Nine: Standards for Traffic Engineering, the threshold for requiring level of service analysis is 50 trips in the peak hour. The construction phase of the project does not exceed the peak hour threshold of significance established by Kern County; therefore, no level of service analysis is required.

Construction of the primary access driveway connection from SR-178 would require a Caltrans encroachment permit and temporary traffic control measures. Installation of the proposed secondary emergency access gate on Brown Road would require coordination with Kern County Public Works.

Kern Regional Transit bus service along the SR-178 corridor, with a stop adjacent to the Project access driveway, would remain available to construction workers and is an existing transit facility the Project is situated to utilize.

Operation

During operation, the Project would generate ~241 average daily trips, including ~23 AM peak-hour trips and ~14 PM peak-hour trips. This level of trip generation does not exceed the Kern County 50-trip peak-hour threshold.

Trip generation volumes for the proposed land use for the operational phase were calculated using the Institute of Transportation Engineers (ITE) Trip Generation, 12th Edition. The trip generation is based on the ITE Code 160 (Data Center). The results are shown below.

Table 4.16-3 (Restated from Table 2 of Trip Generation Analysis, Appendix H.1)

ITE Code	Development Type	Variable	ADT RATE	ADT		In %		Out %			%
						Split/Tr	% Split/ Trips	Split/ Trips	% Split/ Trips		
160	Data Center	270.218 1000 sq ft GFA	eq ¹	241		71%	29% 6	0.05	19% 3	81% 1	1

¹Equation (eq) represents the ITE 12th Edition fitted curve equation.

As shown in the above table, the proposed project is anticipated to generate 241 daily trips, 23 AM peak hour trips, and 14 PM peak hour trips. The operational phase of the project does not meet the 50-trip peak hour threshold required for further analysis, as established by Kern County; therefore, the level of service is anticipated to remain the same.

Traffic Analysis

The published daily capacity of a two-lane roadway in Kern County, such as State Route 178 within the study scope, is approximately 10,000 vehicles per day (Table T-001). Based on the most recent traffic volume data provided by the Caltrans Traffic Census Program, the average daily traffic volume for the segment of the 178 within the project scope is approximately 3,300 vehicles per day. Kern County uses a Volume-to-Capacity (V/C) ratio to determine a roadway's level of service. A (V/C) > 0.80 is typically considered below level of service C and may require mitigation. In the case of the segment of State Route 178 within the study scope, the volume-to-capacity ratio is $(3,300/10,000) = 0.33$, which is less than 0.80, therefore the roadway segment is currently operating at an acceptable level of service and would continue to do so with the addition of project traffic.

Project Access

The Project would be accessible from the existing roadway system and would not require a fundamental change in the established circulation framework.

No permanent off-site roadway realignment or intersection reconstruction has been identified. Temporary access work, frontage improvements, driveway improvements, or encroachment work required during final design would be subject to agency coordination and applicable traffic control requirements in coordination with Caltrans District 9 and Kern County Public Works.

Mitigation Measures: MM 4.16-1, MM 4.16-2, MM 4.16-3, and MM 4.16-4 would be required.

Level of Significance after Mitigation: Less than significant.

Impact 4.16-2: Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);

In 2013, the state of California enacted legislation (SB 743) which required the Governor’s Office of Planning and Research (OPR) to identify new metrics for measuring and mitigating transportation impacts within the California Environmental Quality Act (CEQA). For land development projects, OPR recommended replacing the metric of vehicle delay, as defined by level of service (LOS) and other similar measures, with VMT metrics based on project land use. Regulatory changes to CEQA Guidelines incorporating SB 743 were approved on December 28, 2018. Statewide implementation began on July 1, 2020.

Under CEQA, lead agencies have the authority to establish their own VMT significance thresholds and analysis methodologies. At the time of this analysis, Kern County has not yet adopted VMT guidelines. Therefore, the VMT analysis was completed using the guidelines and thresholds identified in the California Governor’s Office of Research and Planning Technical Advisory (OPR TA), dated December 2018.

The VMT Guidelines contain criteria for determining whether a land use project may be screened from a detailed VMT analysis. These “screening” criteria relate to project size, location, and accessibility to transit. The project does not meet any of the screening criteria. Therefore, a detailed VMT analysis was conducted for the Project.

As defined in the OPR TA, the project can be evaluated using the VMT per capita metric. Per the OPR TA recommendation, data center land uses less than 15% below the existing regional VMT per capita will indicate a significant VMT impact.

VMT Calculation Methodology

Regional VMT

The Kern Council of Governments (KernCOG) provided regional Traffic Analysis Zone (TAZ) information detailing vehicle types, trip types and respective trip volumes for the region of Kern County where the project is located. The analysis also considers the land uses, population draws, and types of activities within the analysis zone. Based on the KernCOG model, the regional average VMT by land use was found to be 36.85 (see analysis details attached in Appendix H.1). The OPR TA threshold of significance is a VMT of 31.32.

Project VMT

The average VMT of the project was estimated by distributing and assigning project traffic to the street network and calculating the average miles traveled per project trip. The VMT calculation summary and results are provided in Appendix H.1. The output gives a detailed summary of each trip assigned to the street network. The average VMT for the project was determined to be 27.13, which considers trips to areas in Los Angeles to the south, as well as Bakersfield and other Central Valley locations to the west. The below table shows the regional VMT, OPR threshold of

significance for the regional VMT, and the project VMT.

Table 4.16-4 Regional & Project VMT Comparison (Restated from Table 3 of Trip Generation Analysis, Appendix H.1)

Regional VMT	OPR Threshold* for Regional VMT	Project VMT	% Below Regional VMT
36.85	31.32	27.13	30.37

*15% below the regional VMT.

VMT Conclusion

As shown in the above table, the project VMT (27.13) is 30.37% below the regional VMT (36.85) and does not exceed the OPR TA regional threshold of significance of 31.32. Therefore, the project is expected to have a less than significant transportation impact and no further VMT analysis is required.

Table T-004: VMT Analysis Results

Appendix B §(g)(5)(C) | Source: Appendix H.1, Trip Generation and Vehicle Miles Traveled Analysis

Construction

Construction trip generation is estimated at ~267 average daily trips during the peak construction period. Construction trips include worker commute trips, material and equipment deliveries, and truck haul movements. The construction VMT contribution is modest relative to regional volumes and is temporary in nature. The Project does not trigger the Kern County 50-trip peak-hour threshold for LOS analysis during construction.

Operation

The VMT analysis was prepared using the KernCOG TAZ model and OPR Technical Advisory methodology. At the time of analysis, Kern County had not adopted local VMT significance thresholds; accordingly, the OPR threshold of 15 percent below the regional VMT per capita was applied as the significance criterion. The Project does not meet any OPR screening criteria; therefore, a full VMT analysis was conducted.

Table T-004 summarizes the VMT analysis results.

Metric	Value
Regional VMT per capita (Kern COG TAZ model)	36.85
OPR significance threshold (15% below regional average)	31.32
Project VMT per capita	27.13
Project VMT below regional average	30.37%
Significance finding	Less than significant — Project VMT is 30.37% below regional average and below the OPR threshold of 31.32

Source: Appendix H.1, Trip Generation and Vehicle Miles Traveled Analysis, Provost & Pritchard / Ruetters & Schuler Civil Engineers, January 2026.

The Project's calculated VMT of 27.13 is 30.37 percent below the regional average of 36.85 and does not exceed the OPR significance threshold of 31.32. No Transportation Demand Management plan is required; the Project's trip generation is below the threshold at which such measures are warranted under applicable guidelines. The Project would not conflict with CEQA Guidelines Section 15064.3, subdivision (b). A TAZ-level VMT distribution map depicting the KernCOG model output for the Indian Wells Valley TAZ cluster (Appendix B §(g)(5)(C)(iii)) will be provided as a supplemental exhibit (Figure T-5) prior to the CEC data adequacy hearing, confirming that the Project TAZ VMT of 27.13 is below all immediately surrounding TAZs in the study area.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less than significant.

Impact 4.16-3: Substantially Increase Hazards Due to a Geometric Design Feature or Incompatible Uses

This impact evaluates whether the Project would substantially increase hazards due to a geometric design feature, incompatible land uses, including airport proximity.

The proposed Project does not involve the construction of a new, or rerouting an existing, public

roadway, or physical alterations to an existing intersection involving a public roadway. However, the proposed Project would involve the construction and use of new driveways from public roads to provide access to the Project Site. Prior to constructing these driveways, the Project proponent would be required to apply for, and obtain, an Encroachment Permit from the Kern County Public Works Department Engineering, Surveying, and Permit Service's Department (collectively, "Public Works"). Prior to issuing an Encroachment Permit, Public Works would review the proposed location and design of the driveways given the types of roadways to which they would connect, and confirm that they comply with applicable safety design standards set forth in the Kern County Development Standards (for example, Chapter V, Access, Section 105-4, County Roads-Driveway Approaches; Chapter VI, Site Access Design, Section 106-1, Introduction, et seq.; and Chapter V, Line of Sight Review, Section 905-1, Uncontrolled Intersections, et seq.). Compliance with applicable requirements for the issuance of an Encroachment Permit would ensure that the driveways' designs and locations do not present any unusual risks or traffic-related hazards, and impacts would be less than significant.

During construction and operation and maintenance activities, the proposed Project would require the delivery of heavy construction equipment and building components using area roadways, some of which may require transport by oversize vehicles. Heavy equipment associated with these components would not be hauled to/from the site on a regular (for example, daily) basis, but rather on an as-needed basis. Nevertheless, the use of oversized vehicles during construction and periodic maintenance activities can create hazards by limiting motorist views on roadways and by obstructing roadway space, thereby creating the potential for traffic accidents. This is considered a potentially significant impact.

Implementation of Mitigation Measures MM 4.16-1 through MM 4.16-3 would reduce impacts associated with hazards from the use of oversized vehicles during construction and/or decommissioning activities. The Project proponent would be required to prepare, and obtain approval of, a Construction Traffic Control Plan which satisfies certain requirements including, but not limited to, obtaining Encroachment Permits for the use of oversized vehicles that will utilize county-maintained roads and use of California Highway Patrol or a pilot car escort, in compliance with the CVC and California Streets and Highways Code.

Additionally, during construction and/or decommissioning activities, Mitigation Measure MM 4.16-3 would require the Project proponent to obtain required permits for all oversized vehicles used on public roadways, obtain approval of a Construction Traffic Control Plan, and identify anticipated construction delivery times and vehicle travel routes in advance to minimize construction traffic during AM and PM peak hours. This would ensure that oversized vehicle loads compliant with applicable requirements of the CVC and California Streets and Highways Code, including, but not limited to, requirements regarding licensing, size, weight, load, and roadway encroachment of construction vehicles. Therefore, with the implementation of Mitigation Measure MM 4.16-3, impacts would be less than significant.

Construction

Construction of the Project would involve oversize and overweight equipment deliveries, including main step-down transformers (~200 tons each), diesel generators (~50 tons each), and

air-cooled chillers (~30 to 40 tons each). The facility includes 40 diesel generators rated at 3 MW each and 28 air-cooled chillers, as documented in the Thermal Plume Analysis (Appendix E.4). These movements would be conducted pursuant to Caltrans Special Transportation Permits, would require a pre-haul route survey for bridge and culvert load ratings on SR-178 and US-395, and would be coordinated with Caltrans District 9 (Bishop, (760) 872-0711) through the Caltrans Kermit online permitting system. Table T-005 identifies the principal oversize delivery items, estimated weights, and anticipated routes.

Table T-005: Oversize and Overweight Equipment Deliveries

Appendix B §(g)(5)(D)(iv)

Equipment	Est. Weight	Delivery Phase	Anticipated Route and Permit Notes
Main step-down transformers (×2)	~200 tons each	Phase 1	US-395 from Bakersfield/SR-14 corridor, then SR-178 westbound to site driveway. Caltrans Special Transportation Permit; pre-haul route survey for bridge and culvert load ratings required on SR-178 and US-395.
Diesel generators (×40)	~50 tons each	Phases 1–3	Bakersfield or Los Angeles basin via US-395, then SR-178 westbound to site. Caltrans oversize permit; convoy movement with escort vehicles required.
Air-cooled chillers (×28)	~30–40 tons each	Phases 1–3	US-395, then SR-178 westbound to site. Standard Caltrans oversize permits.
UPS modules (×36)	~10–15 tons each	Phases 1–3	US-395, then SR-178. Legal loads in most configurations; to be confirmed with Caltrans prior to delivery.

Source: Transportation Facility Inventory Map, Figure T-4; Thermal Plume Analysis, Appendix E.4.

Based on the LOS screening in Table T-003, V/C ratios on SR-178 and US-395 remain within acceptable thresholds through construction, with a maximum construction-phase V/C increment of 0.03 on SR-178. The Project's reliance on the existing regional highway network for principal access reduces the potential for incompatible circulation patterns or diversion of substantial Project traffic onto constrained local roads.

Operation

Operational traffic would consist primarily of employee commute trips, service visits, vendor trips, and periodic deliveries. V/C ratios on all study roadways remain at acceptable levels during operations, as shown in Table T-003. No permanent off-site roadway reconfiguration has been identified. With respect to airport proximity, the FAR Part 77 compliance summary in Table T-006 (Section 4.16.5.1) confirms that all Project structures are less than 35 feet AGL, placing them 115 feet below the FAR Part 77 Horizontal Surface limit, and that no project structure falls within the approach surface protection zones of any KIYK runway.

Mitigation Measures: MM 4.16-1 through MM 4.16-5 (see Section 4.16.4).

Level of Significance after Mitigation: Less than significant.

Impact 4.16-4: Inadequate Emergency Access

This impact evaluates whether the Project would result in inadequate emergency access.

Construction

Construction activities associated with the primary SR-178 access driveway connection and the secondary Brown Road emergency access gate would be temporary and subject to final traffic control planning, encroachment permits, and agency coordination prior to commencement of construction activities. Construction trip generation does not approach a scale that would materially impair emergency access on the surrounding roadway network.

Operation

The Emergency Route and Public Services Map (Appendix B, Section (g)(7)) identifies primary access from SR-178 via a secured main gate with Knox Box rapid entry system on the south boundary, and secondary emergency access from Brown Road on the western boundary. This configuration provides more than one route for emergency ingress and egress.

An on-site perimeter service road provides full-campus emergency vehicle circulation with a minimum 20-foot clearance for fire apparatus, and a designated helicopter landing zone is provided within the Project Site for air ambulance access.

Primary fire protection is provided by Kern County Fire Station 83 (6919 Monache Mountain Ave, Inyokern), located ~0.5 mile from the Project Site. Mutual aid is available from Kern County Fire Stations 84 and 81 in Ridgecrest, ~15 to 17 miles from the Project Site. Law enforcement is provided by the Kern County Sheriff's Department, Ridgecrest Station (128 E Coso Ave, Ridgecrest). Emergency medical services are provided by Ridgecrest Regional Hospital (1081 N China Lake Blvd, Ridgecrest), ~15 miles east of the Project Site. Kern County Fire Station 83 is ALS-equipped and provides ground emergency medical response.

The Project's trip generation is not of a scale that would materially impair emergency access on the surrounding roadway network. The nearest sensitive receptor, Inyokern Elementary School, is

~0.8 mile southwest of the Project Site; no immediately adjacent sensitive institutional receptors are present at the Project frontage.

Mitigation Measures: Other than the mitigation measures referenced herein, there are no additional mitigation measures required.

Level of Significance: Less than significant.

4.16.4 Mitigation Measures

No mitigation measures are required for transportation impacts. The Project's construction and operational transportation impacts have been determined to be less than significant based on the analysis presented in Section 4.16.3 and the Trip Generation Analysis (Appendix H.1). Table 4.16-A below provides the Appendix B compliance cross-reference mapping each Section (g)(5) criterion to its location in this document.

Table 4.16-A: CEC SPPE Appendix B Section (g)(5) Compliance Cross-Reference

Ref.	Appendix B Requirement	Section / Table	Status
Setting and Inventory Requirements — Appendix B (g)(5)(A) and (D)			
(g)(5)(A)	Regional transportation setting; 1:250,000 topographic map; reference to local/regional plan transportation element	Section 4.16.1.1; Figure T-4	✓ Addressed
(g)(5)(D)(i)	Roadway classification and design capacity	Table T-001 (Section 4.16.1.4)	✓ Addressed
(g)(5)(D)(ii)	Current daily average and peak traffic counts	Table T-001 (Section 4.16.1.4)	✓ Addressed
(g)(5)(D)(iii)	Current and projected levels of service — before project, during construction, during operation	Table T-003 (Section 4.16.3)	✓ Addressed
(g)(5)(D)(iv)	Weight and load limitations; oversize/overweight delivery routes and permits	Table T-001; Table T-005 (Section 4.16.3)	✓ Addressed

(g)(5)(D)(v)	Estimated percentage of traffic for passenger vehicles and trucks by phase	Table T-002 (Section 4.16.1.4)	✓ Addressed
(g)(5)(D)(vi)	Identification of road features affecting public safety	Table T-001 (Section 4.16.1.4)	✓ Addressed
Impact and Disclosure Requirements — Appendix B (g)(5)(B), (C), (E), and (F)			
(g)(5)(B)(i)	Map (1:24,000) showing airport configuration, influence area/safety zones, and project site	Section 4.16.5.1; Figure T-2	✓ Addressed
(g)(5)(B)(ii)	Thermal plume analysis describing plume velocity	Section 4.16.5.1; Table T-006; Appendix E.4	✓ Addressed
(g)(5)(B)(iii)	Discussion of project conformance with applicable Airport Land Use Compatibility Plan policies	Section 4.16.5.1	✓ Addressed
(g)(5)(B)(iv)	Copies of FAA Form 7460-1 submitted, or documentation that no filing is required	Section 4.16.5.1 — no filing required	✓ Addressed
(g)(5)(C)	VMT evaluation: local thresholds, methodology, VMT heat maps, TDM plans	Section 4.16.3, Impact 4.16-2; Table T-004; Appendix H.1	✓ Addressed
(g)(5)(E)(i)	Estimated one-way trip lengths for workers, deliveries, and truck haul trips	Section 4.16.5.2	✓ Addressed
(g)(5)(E)(ii)	Description of public roadways and intersections temporarily or permanently altered	Section 4.16.5.2	✓ Addressed
(g)(5)(F)	Hazardous materials transportation: types, quantities, trips, routes, means, and transportation hazards	Section 4.16.5.3; Table T-007; MM 4.16-5	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(5). All criteria addressed in this chapter; full technical disclosure in Trip Generation and VMT Analysis (Appendix H.1), Thermal Plume Analysis (Appendix E.4), Transportation Facility Inventory Map (Figure T-4), and Airport Proximity Map (Figure T-2) (filed as supporting exhibits to this Application).

4.16.5 CEC SPPE Appendix B — Additional Transportation Disclosure Requirements

This section provides the additional transportation disclosure information required by CEC SPPE Appendix B, Section (g)(5). This information supplements the CEQA impact analysis provided in Sections 4.16.1 through 4.16.4 above. Appendix B, Section (g)(5), requires a regional transportation setting, airport proximity analysis, VMT evaluation, transportation facilities inventory, construction and operational traffic assessment, and hazardous materials transportation discussion. Each of these requirements is addressed below.

Airport Proximity and FAR Part 77 Analysis — Appendix B (g)(5)(B)

Appendix B, Section (g)(5)(B)(i), requires a map at 1:24,000 showing the airport runway configuration, influence area, and safety zones. The Airport Proximity Map (Figure T-2) satisfies this requirement and depicts: the Project site location; Inyokern Airport (KIYK) boundary and center; FAR Part 77 Horizontal Surface arcs (5,000-foot radius at 150 feet AGL); and the 4-mile Appendix B proximity trigger boundary.

Appendix B, Section (g)(5)(B)(ii), requires a thermal plume analysis describing the plume's velocity. The Thermal Plume Analysis (Appendix E.4), prepared by Yorke Engineering LLC (January 2026), satisfies this requirement using the Spillane methodology (Best et al. 2003) under worst-case calm wind conditions at minimum (31°F) and maximum (102°F) ambient temperatures. Table T-006 summarizes the FAR Part 77 compliance findings for all concern categories evaluated in the Thermal Plume Analysis (Appendix E.4) and Airport Proximity Map (Figure T-2).



Figure T-2: Airport Proximity Map

Table T-006: FAR Part 77 Compliance Summary

Appendix B §(g)(5)(B)(i) | Source: Thermal Plume Analysis (Appendix E.4); Airport Proximity Map, Figure T-2

Concern Category	Finding	Basis
Surface structure height	Compliant	All Project structures less than 35 feet AGL; 115 feet below the Part 77 Horizontal Surface limit of 150 feet AGL (2,607 feet MSL). No structure within approach surface zones. (Figure T-2)
Thermal plume	Less significant than	40 × 3 MW Caterpillar diesel generators with vertical exhaust at grade, equipped with SCR, DEF, and DPF systems. Spillane methodology analysis (Appendix E.4) confirms maximum plume height to Vcrit (5.3 m/s) of 119.7 feet AGL for merged generator plumes under maximum ambient temperature conditions.
Visible water vapor plume	Less significant than	Two four-cell hybrid cooling towers and 28 air-cooled chillers. Thermal Plume Analysis (Appendix E.4) confirms maximum plume height to Vcrit of 125.5 feet AGL for cooling towers and 201.7 feet AGL for merged chiller plumes under minimum ambient temperature conditions. These heights are below altitudes at which aircraft would operate over the Project Site.
Glare	Less significant than	Non-reflective matte commercial roofing and cladding specified. No glass curtain wall or polished metal exterior surfaces. (Figure T-2)
Electrical interference	Compliant	115 kV subtransmission lines are overhead (Route 1: ~8,000 LF; Route 2: ~4,000 LF preferred, per SCE MOS174). Switchgear and UPS shielded per applicable NEC/IEEE standards. No unshielded RF emissions at aviation navigation aid frequencies. Overhead routing does not affect the electrical interference finding — no aviation navigation aids are located within the subtransmission line corridor. (Figure T-2)
Construction cranes (temporary)	No action required	Single-story construction; all cranes well below the 200-foot AGL FAA notice threshold under 14 CFR §77.9. (Figure T-2)

Source: Thermal Plume Analysis, Yorke Engineering LLC, January 2026 (Appendix E.4); Airport Proximity Map (Figure T-2). CEC significance threshold for thermal plume vertical velocity: $V_{crit} = 5.3$ m/s.

Appendix B, Section (g)(5)(B)(iii), requires discussion of the Project's conformance with the applicable ALUCP. The Project Site is in ALUCP Zone C, which is consistent with industrial data center use under M-2 PD zoning. No variance from County height limits is required. Appendix B, Section (g)(5)(B)(iv), requires copies of any submitted FAA Form 7460-1. No filing is required under 14 CFR §77.9 because all structures are less than 35 feet AGL, below the 200-foot AGL notification threshold. If any structure height increases above 35 feet AGL during final design, a Form 7460-1 shall be filed and the ALUC determination updated per MM 4.16-4.

Construction and Operational Traffic — Appendix B (g)(5)(E)

Appendix B, Section (g)(5)(E)(i), requires estimated one-way trip lengths for workers, deliveries, and truck haul trips. Worker commute trips from Ridgecrest, the nearest urban center and primary worker population base, are estimated at ~15 miles one-way, consistent with the emergency service distances documented in the Emergency Route and Public Services Map and with the Project's calculated average VMT of 27.13. Worker commute trips from Bakersfield, a secondary source for skilled trades, are estimated at ~80 miles one-way via US-395 northbound to SR-178 eastbound to the Project Site. Specialty contractor trips from the Los Angeles basin are estimated at ~150 miles one-way via SR-14 northbound to US-395 northbound.

Material and equipment deliveries from regional distribution yards in the Bakersfield area are estimated at ~80 to 150 miles one-way via US-395 and SR-178. Diesel fuel tanker deliveries from the nearest bulk fuel terminal (estimated to be in the Bakersfield area) are estimated at ~80 miles one-way; with ~600,000 gallons of on-site storage and ~8,500 gallons per tanker, initial fill of the on-site tanks would require ~71 tanker loads. One-way trip lengths for construction truck haul trips associated with grading and excavation activities would be determined in the Construction Traffic Management Plan (MM 4.16-1) based on final engineering and identification of disposal or reuse sites.

The Project is currently in the pre-entitlement design phase and final construction sequencing and schedule have not been completed. Duration estimates provided below are based on comparable project experience and the confirmed project scope and will be confirmed and refined through the Construction Traffic Management Plan (MM 4.16-1), Caltrans encroachment permit applications (MM 4.16-2), and Special Transportation Permit coordination (MM 4.16-3) during final design.

Appendix B, Section (g)(5)(E)(ii), requires description of public roadways and intersections temporarily or permanently altered. No permanent alteration of any off-site public roadway or intersection has been identified. Temporary effects are limited to: (1) construction of the SR-178 primary access driveway connection (Caltrans encroachment permit required; MM 4.16-2); (2) installation of the Brown Road secondary emergency access gate (Kern County Roads permit required; MM 4.16-2); and (3) temporary escort and flagging operations during oversize equipment deliveries on SR-178 and US-395 (MM 4.16-3). A right-turn deceleration lane on SR-178 would be evaluated during final design in coordination with Caltrans District 9 per MM 4.16-2. All additional roadway segments subject to temporary effects would be identified in the CTMP per MM 4.16-1.

(1) SR-178 Primary Access Driveway — Construction of the SR-178 primary access driveway connection is estimated to require approximately 2 to 4 weeks of intermittent traffic control and flagging operations on SR-178. Full lane closure periods, if required, would be limited to off-peak hours per Caltrans encroachment permit conditions. Final duration will be confirmed in the Construction Traffic Management Plan (MM 4.16-1) and the Caltrans encroachment permit application (MM 4.16-2) during final design.

(2) Brown Road Secondary Emergency Access Gate — Installation of the Brown Road secondary emergency access gate is estimated to require approximately 1 to 3 days of intermittent access coordination on Brown Road. No lane closures on SR-178 are anticipated for this work. Final scope will be confirmed through the Kern County Roads encroachment permit process (MM 4.16-2).

(3) Oversize and Overweight Equipment Escort Operations — Oversize and overweight equipment deliveries, including main step-down transformers (approximately 200 tons each, ×2), diesel generators (approximately 50 tons each, ×40), and air-cooled chillers (approximately 30 to 40 tons each, ×28), are anticipated to occur intermittently over an approximately 36-month window spanning Phases 1 through 3 of the construction schedule (estimated 2027 through 2030). Individual delivery convoys will require temporary flagging and escort operations on SR-178 and US-395 for periods of approximately 2 to 4 hours per delivery event during off-peak hours. Specific delivery schedules and escort coordination will be confirmed through the Caltrans Special Transportation Permit process (MM 4.16-3) prior to each delivery phase.

Hazardous Materials Transportation — Appendix B (g)(5)(F)

Appendix B, Section (g)(5)(F), requires discussion of project-related hazardous materials to be transported, including types, quantities, estimated trips, routes, means, and transportation hazards. Consistent with Section 4.9, Hazards and Hazardous Materials, hazardous materials associated with construction may include diesel fuel, gasoline, lubricants, hydraulic fluids, solvents, adhesives, curing compounds, and cleaning agents typical of construction activities. Table T-007 identifies the principal operational hazardous material transport streams.

Table T-007: Hazardous Materials Transportation Summary

Appendix B §(g)(5)(F)

Material	Estimated Quantity	Estimated Trips	Anticipated Route	Notes
Diesel fuel (emergency generator backup)	600,000 gal on-site storage (2 × 300,000-gal UL-2085 tanks)	~71 tanker loads (@ ~8,500 gal/tanker) for initial fill; periodic replenishment per	US-395 from Bakersfield/SR-14, then SR-178 westbound to site driveway	Licensed DOT carrier per 49 CFR. On-site secondary containment at fuel farm. Replenishment frequency based on

		operational schedule		emergency exercise and testing schedule.
Transformer dielectric fluid	~200 tons per unit (×2 main step-down transformers)	~2–4 specialized tanker loads per transformer; minimal subsequent deliveries	US-395, then SR-178 westbound to site; oversize transport per Caltrans permit	Delivered with transformer units during Phase 1. Subsequent transport only during major maintenance events.
UPS battery systems (VRLA/Li-ion)	36 UPS modules; ~10–15 tons per module	~36 flatbed or specialty loads during phased installation	US-395, then SR-178 westbound to site	Classified per 49 CFR §173.159. Hazmat placarding required. Replacement per OEM schedule (~10–12 years).
Lubricants, coolants, fire suppression agents (Novec/FM-200)	Per Section 4.9, Hazards and Hazardous Materials	Multiple small deliveries during construction and commissioning; periodic maintenance deliveries	US-395, then SR-178 westbound to site	Transported in DOT-compliant containers by licensed carriers. Quantities to be confirmed in final Hazardous Materials Business Plan.

Source: Project description; Section 4.9, Hazards and Hazardous Materials. Quantities to be confirmed in final Hazardous Materials Business Plan prior to CEC filing.

All hazardous materials would be transported to and from the Project Site by licensed carriers using existing public roadways in compliance with applicable DOT regulations under 49 CFR. Potential transportation hazards would be those typical of regulated hazardous materials shipments and are addressed through licensed DOT carrier requirements, hazmat placarding and documentation, on-site spill containment infrastructure, and Caltrans permit conditions governing oversize and overweight movements. Hazardous materials transport through residential neighborhoods in the Inyokern community would be restricted per the CTMP (MM 4.16-1) and the Oversize and Overweight Delivery Coordination requirements (MM 4.16-3). A Hazardous Materials Business Plan identifying all regulated materials, quantities, routes, and emergency response procedures shall be prepared and submitted to Kern County Environmental Health Services prior to construction commencement per MM 4.16-5.

4.16.6 Cumulative Setting, Impacts and Mitigation Measures

The potential for cumulative transportation impacts exists where there are multiple projects proposed in an area that have an overlapping construction schedule and/or project operations that could affect similar transportation resources. Projects with overlapping construction schedules

and/or operations could result in a substantial contribution to increased traffic throughout the surrounding roadway network, contribute to hazardous roadway conditions, and/or adversely affect emergency access or circulation. Therefore, a temporary cumulative impact related to transportation during construction could result if the proposed Project's incremental effects are combined with impacts of other past, present, and/or reasonably foreseeable future projects. However, as discussed below, Project operation traffic would be minimal once construction activities have concluded. See Appendix N.3 (Cumulative Projects and Cumulative Impacts Analysis) for the full list of past, present, and reasonably foreseeable projects considered in the cumulative transportation analysis.

The cumulative analysis area for transportation encompasses the roadway network serving the Project Site and surrounding Inyokern community, principally SR-178 and US-395, with geographic boundaries extending to the Indian Wells Valley region of northeastern Kern County. Cumulative projects considered in this analysis include past, present, and reasonably foreseeable future development in the Project vicinity, including the adjacent RB Inyokern Solar Project and other industrial, commercial, or residential development anticipated in the Inyokern Specific Plan area.

Cumulative Projects — Transportation Analysis

The following 11 projects form the basis of this cumulative transportation analysis per CEQA Guidelines §15130(a)(1), as independently verified through Kern County Planning & Natural Resources Department, CEQAnet, Caltrans District 9, and Kern COG (April 2026): (1) RB Inyokern Solar Project — Past/Certified; (2) Inyokern 1203 Community Solar Farm — Past/Operational since 2016; (3) Windhub Solar Project — Past/Approved; (4) Edwards AFB Solar Project — Past/Certified; (5) IWVGA Imported Water Pipeline — Present/Active, EIR SCH# 2023080020, cert. est. 2026; (6) SR-178 Rehabilitation Segment 1 (09-38331) — Present/Active, CON April 2027, \$26.6M, Caltrans D9; (7) SR-178 Rehabilitation Segment 2 (09-38330) — Present/Active, CON July 2027, \$34.7M, Caltrans D9; (8) Mojave Life of Mine Reclamation (CalPortland) — Present/Active, EIR in Progress; (9) Pappas Solar Project (Radiant BMT LLC) — Future/Pending, NOP March 2026, EIR in Preparation; (10) SR-14 Shoulder Widening (09-39140) — Future/Pending, CON est. March 2030, \$60.8M, Kern COG; (11) Coso Geothermal Complex (Units 1–3) — Baseline/Existing, operating since 1987–1991. Source: N_3 Conceptual Cumulative Impacts Analysis Technical Support Document, April 2026.

Consistency With Programs, Plans, and Policies

As discussed in this section, the CEQA Guidelines do not provide a VMT significance threshold and Kern County does not have an adopted threshold for evaluating VMT-related impacts. To establish a baseline for daily VMT in the area, Kern COG provided VMT by TAZ in the proposed Project study area, which includes the average trip length for construction, operations, and decommissioning personnel traveling to and from the site, which is estimated to be 27.13 miles. This VMT is less than the lowest baseline average VMT of 36.85 miles, in which the cumulative projects are located.

Construction

The proposed Project's construction phase would generate approximately 267 average daily trips during the peak construction period, which does not exceed the Kern County Division Nine 50-trip peak-hour threshold. The Project's construction-phase trip generation represents a minor increment on SR-178, which has a design capacity of approximately 10,000 vehicles per day and a current average daily volume of approximately 3,300 vehicles per day ($V/C = 0.33$). Even assuming worst-case overlap with all 11 cumulative projects simultaneously under construction, the SR-178 corridor retains substantial reserve capacity. No formal level of service analysis is required for the Project and no significant cumulative construction-phase transportation impact is anticipated.

Operation

During operations and maintenance, the Project would generate approximately 241 average daily trips, which does not exceed the Kern County 50-trip peak-hour threshold. The Project's VMT per employee of 27.13 miles is 26.4 percent below the lowest baseline average VMT of 36.85 miles among the cumulative project locations in the KernCOG TAZ model, and 30.4 percent below the regional average. This places the Project well below the OPR 15-percent-below-regional-average VMT significance threshold on a standalone basis.

The cumulative projects identified in Table 4.16-1 are predominantly utility-scale solar, pipeline infrastructure, roadway rehabilitation, and geothermal operations — land uses with comparatively low operational trip generation rates per acre. The KernCOG TAZ model accounts for these land uses within the regional VMT baseline. Because the Project's operational VMT is below the regional baseline used in the model, the Project's incremental contribution to cumulative operational VMT is not cumulatively considerable. Other projects included in the cumulative analysis would be subject to their own CEQA review, Kern County traffic study thresholds, and Caltrans encroachment permitting requirements, each of which provides an independent check on cumulative VMT growth.

Therefore, the proposed Project would not make a cumulatively considerable contribution to a significant cumulative impact regarding VMT.

Decommissioning

It is assumed that decommissioning activities will be similar to construction activities given similarities between the activities and tasks associated with each (for example, number of workers and types of equipment required). Consequently, it is assumed that proposed Project decommissioning activities will generate trip generation rates that will affect the same roadway intersections and segments as would occur with construction-related traffic. However, unlike the construction conditions described above, whereby multiple projects included in the analysis of cumulative impacts were assumed to be under construction at the same time, decommissioning would likely occur while the other projects included in the analysis of cumulative impacts are in operation. Further, it cannot be determined what other projects will be established or under consideration at the time that decommissioning would occur. Therefore, an analysis of cumulative

impacts associated with decommissioning activities would be unduly speculative.

Conclusion

The Project's incremental contribution to cumulative transportation conditions would not be significant. Construction generates ~267 average daily trips (peak period) and operations generate ~241 average daily trips, neither of which exceeds the Kern County 50-trip peak-hour threshold. The Project's VMT of 27.13 is 30.37 percent below the regional average and below the OPR significance threshold. The maximum construction-phase V/C increment on SR-178 is 0.03, which does not degrade the level of service below an acceptable threshold. These metrics indicate that the Project's contribution to cumulative VMT and roadway loading would be a *de minimis* increment on a regional highway system with substantial available capacity.

Other development projects in Kern County would be subject to the same CEQA review requirements, Kern County traffic study thresholds, Caltrans encroachment permitting requirements, and applicable VMT analysis obligations. Each such project would be independently evaluated for its cumulative transportation contribution.

Implementation of Mitigation Measures MM 4.16-1 through MM 4.16-5 would address the Project's construction and operations phase traffic management, access permitting, oversize delivery coordination, FAR Part 77 and ALUC notification requirements, and hazardous materials business plan preparation, reducing the Project's incremental contribution to cumulative transportation impacts to a less than significant level.

The Project is consistent with the Kern County General Plan Circulation Element policy framework, which requires that new development not degrade the level of service on the County's roadway network below acceptable standards and that adequate emergency access routes be maintained. The Project is also consistent with applicable policies of the Inyokern Specific Plan.

Mitigation Measures: Implementation of Mitigation Measures MM 4.16-1 through MM 4.16-5 would be required.

Level of Significance after Mitigation: Less than significant.

Geometric Design Features / Emergency Access

If construction of the projects included in the analysis of cumulative impacts would occur at the same time, a significant, cumulative impact regarding hazards and emergency access could occur, as these projects would add a substantial number of heavy- and medium-duty vehicles to rural roadways. Construction of the data center would likely introduce a considerable number of vehicles on roadways, which could create changed traffic patterns and obstacles on roadways, thereby potentially increasing roadway hazards and emergency access in addition to those that the proposed Project would create. Therefore, the proposed Project has the potential to make a cumulatively considerable contribution to a significant cumulative impact regarding the introduction of obstacles on roadways and impairing emergency access.

To address the proposed Project's contribution to cumulative impacts associated with roadway

hazards and emergency access, construction and decommissioning activities would be subject to Mitigation Measure MM 4.16-1. As described in this section, these measures would require the Project proponent to prepare, and obtain approval of, a Construction Traffic Control Plan that satisfies certain requirements including, but not limited to, obtaining Encroachment Permits for the use of oversized vehicles that will utilize county-maintained roads and use of California Highway Patrol or a pilot car escort, in compliance with the California Vehicle Code and California Street and Highway Codes.

Additionally, Mitigation Measure MM 4.16-3 would require the Project proponent to obtain required permits for all oversized vehicles used on public roadways during construction, obtain approval of a Construction Traffic Control Plan, and identify anticipated construction delivery times and vehicle travel routes in advance to minimize construction traffic during AM and PM peak hours. This would ensure that construction-related oversize vehicle loads comply with applicable requirements of the CVC and California Street and Highway Code including, but not limited to, requirements regarding licensing, size, weight, load, and roadway encroachment of construction vehicles. Therefore, with the implementation of Mitigation Measure MM 4.16-3, the proposed Project would not make a cumulatively considerable contribution to cumulative impacts associated with geometric hazards and/or emergency access.

Further, given the relatively small number of vehicle trips and types of vehicles that would be used, project operations and maintenance activities are unlikely to make a cumulatively considerable contribution to impacts regarding geometric hazards and/or emergency access. As stated above, proposed Project operation/maintenance activities are estimated to produce ~241 average daily trips which does not exceed the Kern County 50-trip peak-hour threshold. The Project's VMT of 27.13 is 30.37 percent below the regional average and below the OPR significance threshold.

These trips consist of worker commuter trips and are unlikely to involve large, heavy-duty, and/or oversized vehicles that could present unique hazards or unduly impede emergency access. Therefore, proposed Project operations and maintenance activities will not make a cumulatively considerable contribution to a significant impact involving roadway hazards and/or emergency access.

Finally, similar to the proposed Project, other projects included in the analysis of cumulative impacts would be evaluated during the environmental review process to assess construction trip related impacts to geometric design and emergency access. At the time of Project-specific review, mitigation measures to reduce the likelihood of hazards during project construction would be developed and applied, if required. Further, all projects included in the analysis of cumulative impacts would be subject to Kern County Development Standards, specifically Chapter VI, Site Access Design, Section 106-3, which requires access drives to be placed so that they intersect at 90 degrees with public streets. This would reduce the potential for dangerous intersections or sharp curves that could increase hazards due to geometric design features.

Finally, the Project would be required to adhere to all County Development Standards and likely will be subject to Project-specific transportation and traffic analysis, thereby reducing the potential for hazardous circulation patterns within the Project site.

Mitigation Measures: Implementation of Mitigation Measures MM 4.16-1 through MM 4.16-5 would be required.

Level of Significance: Cumulative impacts would be less than significant.

Mitigation Measures

MM 4.16-1: Prior to the issuance of construction or building permits, the project proponent/operator shall:

- Prepare and submit a Construction Traffic Control Plan to Kern County Public Works Department – Development Review and the California Department of Transportation offices for District 9, as appropriate, for approval. The Construction Traffic Control Plan must be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and must include, but not be limited to, the following issues:
- Timing of deliveries of heavy equipment and building materials;
- Directing construction traffic with a flag person;
- Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic;
- Ensuring access for emergency vehicles to the project sites;
- Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections;
- Maintaining access to adjacent property; and
- Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak hour, distributing construction traffic flow across alternative routes to access the project sites, and avoiding residential neighborhoods to the maximum extent feasible.
- Monitoring shall be conducted on a weekly basis by the project proponent/operator and any deficiencies shall be corrected immediately. Proof of compliance shall be available and furnished at the request of the Kern County Public Works Department-Development Review and the California Department of Transportation at any time during construction of subtransmission line facilities.
- Obtain all necessary encroachment permits for the work within the road right-of-way or use of oversized/overweight vehicles that will utilize county maintained roads, which may require California Highway Patrol or a pilot car escort. Copies of the approved traffic plan and issued permits shall be submitted to the Kern County Planning and Natural Resources Department, the Kern County Public Works Department-Development Review, and the California Department of Transportation.

- Enter into a secured agreement with Kern County to ensure that any County roads that are demonstrably damaged by project-related activities are promptly repaired and, if necessary, paved, slurry-sealed, or reconstructed as per requirements of the State and/or Kern County.
- Submit documentation that identifies the roads to be used during construction. The project proponent/operator shall be responsible for repairing any damage to non-county maintained roads that may result from construction activities. The project proponent/operator shall submit a preconstruction video log and inspection report regarding roadway conditions for roads used during construction to the Kern County Public Work Department-Development Review and the Kern County Planning and Natural Resources Department.
- Within 30 days of completion of construction, the project proponent/operator shall submit a post-construction video log and inspection report to the County. This information shall be submitted in digital video disc format. The County, in consultation with the project proponent/operator's engineer, shall determine the extent of remediation required, if any.

MM 4.16-2: Encroachment Permits and Driveway Access Coordination. Prior to commencement of any construction activity within the SR-178 or Brown Road rights-of-way, the Applicant shall obtain all required Caltrans encroachment permits for SR-178 work and Kern County Roads permits for Brown Road work, and shall submit copies to the Kern County Planning and Natural Resources Department. The Applicant shall coordinate the right-turn deceleration lane evaluation on SR-178 with Caltrans District 9 (Bishop, (760) 872-0711) during final design. All access improvements shall be completed in accordance with applicable Caltrans and Kern County standards prior to commencement of operations.

MM 4.16-3: Oversize and Overweight Delivery Coordination. Prior to commencement of major equipment deliveries (including but not limited to main step-down transformers, diesel generators, and air-cooled chillers), the Applicant shall: (a) complete a pre-haul route survey for bridge and culvert load ratings on SR-178 and US-395 in coordination with Caltrans District 9; (b) obtain all required Caltrans Special Transportation Permits through the Caltrans Kermit online permitting system; and (c) coordinate delivery scheduling and escort arrangements with Caltrans District 9 and the Kern County Sheriff's Department as required by permit conditions. All oversize and overweight movements shall be scheduled during off-peak hours. The Applicant shall provide copies of all issued Special Transportation Permits to the Kern County Planning and Natural Resources Department prior to each delivery phase.

MM 4.16-4: Airport Land Use Commission Consistency Determination and FAR Part 77 Confirmation. Prior to issuance of building permits, the Applicant shall obtain a formal consistency determination from the Kern County Airport Land Use Commission (ALUC) for Inyokern Airport (KIYK) and provide a copy to the CEC as a supplemental exhibit to this Application. The Applicant shall also confirm with the Federal Aviation Administration that no project component requires filing of FAA Form 7460-1 (Notice of Proposed Construction or Alteration) under 14 CFR §77.9. If any structure height increases above 35 feet AGL during final design, the Applicant shall file FAA Form 7460-1 for the affected component(s) and provide

written confirmation of the FAA determination to the CEC and to the Kern County Planning and Natural Resources Department prior to commencement of construction of the affected component.

MM 4.16-5: Hazardous Materials Business Plan. Prior to issuance of construction or building permits, the Applicant shall prepare and submit a Hazardous Materials Business Plan (HMBP) to the Kern County Environmental Health Services Department in accordance with California Health and Safety Code §25505 et seq. The HMBP shall identify all hazardous materials to be used, stored, or transported in connection with the Project, including diesel fuel, transformer dielectric fluid, UPS battery systems (VRLA/Li-ion), fire suppression agents (Novec/FM-200), and other regulated materials identified in Section 4.9 (Hazards and Hazardous Materials) and Table T-007 of this Application. A copy of the approved HMBP shall be submitted to the Kern County Planning and Natural Resources Department and to the CEC prior to commencement of construction activities.

4.17 TRIBAL CULTURAL RESOURCES

Introduction

This section of the Application describes the affected environment and regulatory context for Tribal Cultural Resources (TCRs) for the Project. This section also evaluates the potential impacts to TCRs associated with the construction, operation, and maintenance of the Project, and identifies mitigation measures that would avoid or lessen those impacts, where applicable.

Information in this section is based primarily on the Project Description (Section 3), the Phase I Cultural Resources Survey (Appendix B.1), the Historical Architectural Report (Appendix B.2), and the Project Site Plan (Appendix A.1). The Phase I Cultural Resources Survey was prepared to support CEQA review of the Project and addresses the records search, literature review, geoarchaeological sensitivity assessment, field survey results, and the status of the Native American Heritage Commission (NAHC) Sacred Lands File request.

CEC SPPE Appendix B, Section (g)(2) requirements applicable to Tribal Cultural Resources are addressed in Section 4.17.5 of this chapter.

CEC SPPE Appendix B — Section (g)(2) Applicability

California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(2) — Cultural Resources and Tribal Cultural Resources, requires:

(A) A summary of the ethnology, prehistory, and history of the region with emphasis on the area within no more than a 5-mile radius of the project location, addressing the potential for buried cultural resources and tribal cultural resources.

(B) The results of a literature search to identify cultural resources and tribal cultural resources within an area not less than a 1-mile radius around the project site and not less than one-quarter (0.25) mile on each side of the linear facilities. DPR 523 forms and qualifying prior reports shall be provided.

(C) The results of new cultural resource and tribal cultural resource surveys or surveys less than 5 years old, including updated DPR 523(A) forms, a 1:24,000 resource map, and a technical report conforming to ARMR format.

(D) A copy of the NAHC request for information on Native American sacred sites and lists of Native Americans interested in the project vicinity; copies of all correspondence sent to and received from Native American individuals and groups; and written summaries of oral responses.

(E) A discussion of measures proposed to mitigate project impacts to known cultural and tribal cultural resources; contingency measures for previously unknown cultural and tribal

cultural resources; and educational programs to enhance employee awareness during construction and operation.

All Section (g)(2) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.17.1–4.17.4. The Appendix B supplemental disclosure is provided in Section 4.17.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.17-A, immediately preceding Section 4.17.4.

Definitions and Terminology

“Tribal Cultural Resources”

Pursuant to the definition set forth in the Public Resources Code (PRC) (Section 21074(a)), “tribal cultural resources” include the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
- Included or determined to be eligible for inclusion in the California Register of Historical Resources, or
- Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1 [of the PRC]. In applying the criteria set forth in subdivision (c) of Section 5024.1 [of the PRC] for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

“Tribal Cultural Resource”

Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either included or determined to be eligible for inclusion in the CRHR or included in a local register of historical resources (PRC Section 21074(a)(1)).

A cultural landscape that meets the criteria of PRC Section 21074(a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. (PRC Section 21074(b)).

A historical resource described in PRC Section 21084.1, a unique archaeological resource defined in PRC Section 21083.2(g), or a “nonunique archaeological resource” as defined in (PRC Section 21083.2(h)) may also be a tribal cultural resource if it conforms to the criteria in (PRC Section 21074(a)).

“Native American Sacred Site”

An area that has been, and often continues to be, of religious significance to Native American peoples, such as an area where religious ceremonies are practiced or an area that is central to their origins as a people. They also include areas where Native Americans gather plants for food, medicinal, or economic purposes.

Definition of “ Project Footprint”

For this Tribal Cultural Resources section, the “project footprint” is defined as the area encompassing the proposed Project and associated infrastructure.

Potential for Buried Cultural Resources and Tribal Cultural Resources

Notably as discussed in the Cultural Resources section, according to Meyer et al. (2010), the Project Site exists on a geological landform that is Moderately High for archaeological deposits with Moderate potential for buried sites. However, although the proposed Project is located almost entirely within undeveloped land, the disturbed context and land-use history suggest that the potential for intact buried archaeological deposits being encountered during construction is low.

Overall, given the local geomorphic setting, mapped soils, and observed disturbance, the potential for buried cultural resources and tribal cultural resources was assessed as low. This assessment informed field methods by confirming the need for a surface-only survey with no targeted subsurface testing.

The Phase I Cultural Resources Survey (Appendix B.1) found no Native American buried cultural resources and tribal cultural resources. The Phase I Survey involved an archival records search was conducted at the California State University, Bakersfield, Southern San Joaquin Valley Information Center by SSJVIC staff members in January 2026, a search of the NAHC Sacred Lands File was requested to ascertain whether traditional cultural places or cultural landscapes had been identified within or adjacent to the Project Site, an Intensive Phase I Survey,

See Section 4.5, *Cultural Resources*, for specific, relevant tribal cultural resources that are considered in this Tribal Cultural Resources section.

4.17.1 Environmental Setting

Regional Setting

The Project area is located within Indian Wells Valley in the western Mojave Desert in northeastern Kern County. The Project area lies in a region that has the potential to contain prehistoric, ethnographic, historic-period, and buried cultural resources. The Phase I Cultural Resources Survey provides a regional overview of the archaeology, ethnography, and history of the Inyokern region and describes the Project area as part of a broader Mojave Desert cultural landscape. The Phase I report includes a prehistoric chronology for the region and notes that the Project area is near the ethnographic boundary between the Coso Shoshone and the Kawaiisu.

The Project area was also evaluated for the potential to contain buried cultural resources and tribal cultural resources. According to the Phase I Cultural Resources Survey, the Project area is located on a landform rated "Moderately High" for archaeological deposits, with "Moderate" potential for buried sites. However, the report concludes that the disturbed context and land-use history of the Project area reduce the likelihood that intact buried archaeological deposits would be encountered during Project construction. Overall, the report assesses the potential for buried cultural resources and tribal cultural resources within the Project area as low.

Local Setting

The Phase I Cultural Resources Survey defines the study area as approximately 95 acres, including the Project site and a surrounding 200-foot buffer. The Project area is located within Sections 19, 20, 29, and 30, Township 26 South, Range 39 East, Mount Diablo Base and Meridian, within the Inyokern United States Geological Survey 7.5-minute quadrangle. Elevation within the Project area ranges from approximately 2,415 feet to 2,435 feet above mean sea level.

The archival records search for the Project was conducted at the Southern San Joaquin Valley Information Center (SSJVIC) in January 2026. According to the Phase I Cultural Resources Survey, the literature search and Area of Potential Effects encompass the Project site and all associated linear facilities. The records search identified 10 previous studies covering large portions of the Project area and 26 additional studies within a 1-mile radius. A total of 49 cultural resources were identified within the records search area. Of those 49 resources, seven intersect the defined Area of Potential Effects/limits of disturbance, while the remaining 42 are outside the Project area. Because the previous field surveys within the Project area exceeded the age limits for baseline data under CEQA, ASM re-surveyed those areas for the current Project.

Fieldwork for the Phase I survey was conducted on January 8, 2026, using pedestrian transects spaced at approximately 15 meters. The Phase I report states that six of the seven previously recorded resources that intersect the Project area were relocated and updated, and that the remaining resource was determined to be outside the Project area and was not investigated further. The report concludes that the identified resources within the Project area are historic in age, lack integrity, and are recommended not eligible for listing in the California Register of Historical Resources (CRHR). No additional archaeological sites or historic properties were identified within the Project area during the field survey. The Historical Architectural Report similarly concludes that the surveyed built-environment resources evaluated for the Project are not recommended eligible under the CRHR criteria.

The six previously recorded resources identified within the Project area during the Phase I survey are summarized in **Table 4.17-1**.

Table 4.17-1. Previously Recorded Cultural Resources within the Project Area

Resource Number	Type	Period	Description / CRHR Recommendation
P-15-002050 / CA-KER-002050H	Site	Historic	Southern Pacific Railroad grade segment; not eligible
P-15-019864 / CA-KER-010862H	Site	Historic	Historic refuse scatter and fence line; not eligible
P-15-019867 / CA-KER-010865H	Site	Historic	Historic refuse scatter; not eligible
P-15-019869 / CA-KER-010867H	Site	Historic	Historic refuse scatter with earthen features; not eligible
P-15-019870 / CA-KER-010868H	Site	Historic	Historic refuse scatter; not eligible
P-15-020317	Structure	Historic	California State Route 178 segment; not eligible

Source: Phase I Cultural Resources Survey, ASM Affiliates, February 2026.

A request for a search of the NAHC Sacred Lands File was submitted on December 22, 2025, and again on January 23, 2026. Copies of both request letters have been submitted to the CEC under confidential cover pursuant to Title 20, California Code of Regulations, Section 2501 et seq. As of the date of SPPE submission, no response had been received from the NAHC. Accordingly, no NAHC response, tribal outreach correspondence, tribal written responses, or written summaries of oral responses are available for inclusion in the Application. Any subsequent NAHC or tribal correspondence, if received, would be maintained under confidential cover and provided to the CEC as appropriate.

Setting

Federal

The Native American Graves Protection and Repatriation Act (NAGPRA) was enacted on November 16, 1990. The Act includes three major sets of provisions. The "repatriation" provisions of the Act require federal agencies and institutions that receive federal funding to return Native

American "cultural items" in their possession or control to lineal descendants and culturally affiliated American Indian tribes, Alaska Native villages, and Native Hawaiian organizations. Cultural items include human remains, funerary objects, sacred objects, and objects of cultural patrimony. A program of federal grants assists in the repatriation process and the Secretary of the Interior may assess civil penalties on museums that fail to comply.

NAGPRA's "disposition" provisions establish procedures for the inadvertent discovery or planned excavation of Native American cultural items on federal or tribal lands, which includes private and state lands within the exterior boundary of an Indian reservation. These provisions do not apply to discoveries or excavations on non-federal or tribal lands, but the repatriation provisions do apply to Native American cultural items if they come under the control of an institution that receives federal funding.

NAGPRA also makes it a criminal offense to traffic in Native American human remains without right of possession or in Native American cultural items obtained in violation of the Act. In the original statute penalties for a first offense could reach 12 months imprisonment and a \$100,000 fine. The statute was amended in 2022 to increase the penalty for a first conviction for trafficking Native American human remains from 12 months imprisonment to one year and one day (a felony) and for a subsequent conviction from five years to ten years. An initial conviction for trafficking of Native American cultural items remains a misdemeanor (imprisonment of up to one year), but the penalty for a subsequent conviction was likewise changed from five to ten years.

The Department of the Interior revised the regulations implementing NAGPRA in 2024 to clarify steps for its implementation. The revised regulations, which went into effect on January 12, 2024, state "...museums and Federal agencies must defer to the Native American traditional knowledge of lineal descendants, Indian Tribes, and Native organizations."

State

Native American Heritage Commission Section 5097.91 of the California PRC established the NAHC, whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner. The NAHC will notify the most likely descendant. With the permission of the landowner, the most likely descendant may inspect the site of discovery. Recommendations must be provided within 48 hours of notification of the most likely descendant by the NAHC and being provided access to the project boundary. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

California Environmental Quality Act

CEQA is applicable to discretionary actions by state or local lead agencies. Under CEQA, lead agencies must analyze impacts to cultural resources. Significant impacts under CEQA occur when "historically significant" or "unique" cultural resources are adversely affected, which

occurs when such resources could be altered or destroyed through project implementation. Historically significant cultural resources are defined by eligibility for or by listing in the California Register of Historical Resources (CRHR). In practice, the federal NRHP criteria for significance applied under Section 106 are generally (although not entirely) consistent with CRHR criteria (see PRC § 5024.1, Title 14 CCR, Section 4852 and § 15064.5(a)(3)). Significant cultural resources are those archaeological resources and historical properties that:

1. Are associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Are associated with the lives of persons important in our past;
3. Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
4. Have yielded, or may be likely to yield, information important in prehistory or history.

Unique resources under CEQA, in slight contrast, are those that represent: An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC § 21083.2(g)).

Preservation in place is the preferred approach under CEQA to mitigating impacts to significant or unique cultural resources.

AB 52

AB 52 was approved by California State Governor Edmund Gerry "Jerry" Brown, Jr. on September 25, 2014. The act amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. Further, on July 30, 2016, the California Natural Resources Agency adopted the final text for tribal cultural resources update to Appendix G of the CEQA Guidelines, which the Office of Administrative Law approved on September 27, 2016.

AB 52 applies (in pertinent part) specifically to projects for which a Notice of Preparation is filed indicating that an EIR must be prepared, on or after July 1, 2015. The primary intent of AB 52 is to include California Native American Tribes early in the environmental review

process and to establish a new category of resources related to Native Americans that require consideration under CEQA, known as tribal cultural resources. As stated above, PRC Sections 21074(a)(1) and (2) define “tribal cultural resources” that are subject to consideration pursuant to AB 52.

PRC Section 21080.3.1 requires that within 14 days of a lead agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the lead agency must provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the proposed Project (as defined in PRC Section 21073) and who have requested in writing to be informed by the lead agency (PRC Section 21080.3.1(b)). Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency’s formal notification and the lead agency must begin consultation within 30 days of receiving the tribe’s request for consultation (PRC Section 21080.3.1(d) and 21080.3.1(e)).

PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; the significance of the proposed Project’s impacts on the tribal cultural resources; proposed Project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC Section 21080.3.2(b)).

If a California Native American tribe has requested consultation pursuant to PRC Section 21080.3.1 and has failed to provide comments to the lead agency, or otherwise failed to engage in the consultation process, or if the lead agency has complied with Section 21080.3.1(d) and the California Native American tribe has failed to request consultation within 30 days, the lead agency may certify an EIR (*Ibid* Sections 21082.3(d)(2) and -(3)).

PRC Section 21082.3(c)(1) states that any information including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information would be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

The California Energy Commission, as the CEQA lead agency for the SPPE, implements the AB 52 consultation requirements as part of the SPPE review process. AB 52 consultation is a component of the NAHC outreach process described in Section 4.17.1.1 and MM 4.17-1.

Senate Bill 18

SB 18 (Statutes of 2004, Chapter 905), which went into effect January 1, 2005, requires local governments (city and county) to consult with Native American tribes before making certain planning decisions and to provide notice to tribes at certain key points in the planning process. The intent is to “provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places” (Governor’s Office of Planning and Research, 2005).

The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level, land use designations are made by a local government. The consultation requirements of SB 18 apply to general plan or specific plan processes proposed on or after March 1, 2005.

According to the *Tribal Consultation Guidelines: Supplement to General Plan Guidelines* (Governor’s Office of Planning and Research, 2005), the following are the contact and notification responsibilities of local governments:

- (a) Prior to the adoption or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the NAHC) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts to, cultural places located on land within the local government’s jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code Section 65352.3).
- (b) Prior to the adoption or substantial amendment of a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the city or county’s jurisdiction. The referral must allow a 45-day comment period (Government Code Section 65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.
- (c) Local government must send a notice of a public hearing, at least 10 days prior to the hearing, to tribes who have filed a written request for such notice (Government Code Section 65092).

California Health and Safety Code, Sections 7050 through 7053

California Health and Safety Code Section 7050.5, declares that, in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbance must cease, and the county coroner must be notified. Sections 7052 and 7052.5 establish a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives or to dispose as permitted by law. Section 7053 makes it a misdemeanor to arrest, attach, detain, or claim to detain any human remains for any debt or demand, or upon any pretended lien or charge, or to fail to release any human remains, the personal effects, or any certificate or permit

required under Division 102 (commencing with Section 102100) upon the delivery of authorization for the release signed by the next of kin or by any person entitled to the custody of the remains.

California Public Resources Code 5097.98

PRC Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

The Code mandates procedures for handling Native American human remains or burial goods discovered on private or state land. It requires immediate notification of "Most Likely Descendants" (MLDs) by the Native American Heritage Commission (NAHC). Descendants have 48 hours to inspect the site and recommend respectful treatment.

California Public Records Act

Sections 6254(r) and 6254.10 of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public related to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports maintained by, or in the possession of, the DPR, the State Historical Resources Commission, the State Lands Commission, the NAHC, another State agency, or a local agency, including the records that the agency obtains through a consultation process between a California Native American tribe and a State or local agency."

California Health and Safety Code, Sections 7050 and 7052

Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbance must cease and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

California Penal Code, Section 622.5

California Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

California Native American Graves Protection and Repatriation Act of 2001

Codified in the California Health and Safety Code Sections 8010-8030, the California Native American Graves Protection and Repatriation Act (Cal NAGPRA) is consistent with the federal NAGPRA. Intended to "provide a seamless and consistent state policy to ensure that all California Indian human remains and cultural items be treated with dignity and respect," Cal NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants, Section 8025 established a Repatriation Oversight Commission to

oversee this process. The Cal NAGPRA also provides a process for non-federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the California Register of Historical Resources is “an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change.” Certain properties, including those listed in, or formally determined eligible for listing in, the National Register and CHLs numbered 770 and higher, are automatically included in the California Register. Other properties recognized under the California PHI program, identified as significant in historic resources surveys or designated by local landmarks programs, may be nominated for inclusion in the California Register. A resource (either an individual property or a contributor to a historic district) may be listed in the California Register if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on National Register criteria:

- It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- It is associated with the lives of persons important in our past.
- It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- It has yielded, or may be likely to yield, information important in history or prehistory.

Furthermore, under PRC 5024.1, Title 14 California Code of Regulations [CCR], Section 4852(c), a cultural resource must retain integrity to be considered eligible for the California Register. Specifically, it must retain sufficient character or appearance to be recognizable as a historical resource and convey reasons of significance.

Integrity is evaluated with regard to retention of such factors as location, design, setting, materials, workmanship, feeling, and association. Cultural sites that have been affected by ground disturbing activities, such as farming, often lack integrity because they have been directly damaged or moved from their original location, among other changes.

Typically, an archaeological site in California is recommended eligible for listing in the California Register based on its potential to yield information important in prehistory or history (Criterion 4). Important information includes chronological markers such as projectile point styles or obsidian artifacts that can be subjected to dating methods or undisturbed deposits that retain their stratigraphic integrity. Sites such as these have the ability to address research questions.

California Historical Landmarks

California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource also must be approved for designation by the County Board of Supervisors (or the city or town council in whose jurisdiction it is located); be recommended by the State Historical Resources Commission; and be officially designated by the Director of California State Parks. The specific standards now in use were first applied in the designation of CHL #770. CHLs #770 and above are automatically listed in the California Register. To be eligible for designation as a landmark, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type in the State or within a large geographic region (Northern, Central, or Southern California);
- It is associated with an individual or group having a profound influence on the history of California; or
- It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest (PHI) are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. PHI designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the California Register. No historic resource may be designated as both a landmark and a point. If a point is later granted status as a landmark, the point designation will be retired. In practice, the point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance. To be eligible for designation as a PHI, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type within the local geographic region (city or county);
- It is associated with an individual or group having a profound influence on the history of the local area; or
- It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

Local

Kern County General Plan

The proposed Project is subject to applicable policies and measures of the KCGP. The Land Use, Open Space, and Conservation Element of the KCGP include the following policies and implementation measures related to cultural resources that apply to the proposed Project:

Chapter 1. Land Use, Open Space, and Conservation Element

Archaeological, Paleontological, Cultural, and Historical Preservation (1.10.3)

Policy 25: The County will promote the preservation of cultural and historic resources that provide ties with the past and constitute a heritage value to residents and visitors.

Implementation Measures

Measure N: The County shall develop a list of Native American organizations and individuals who desire to be notified of proposed discretionary projects. This notification will be accomplished through the established procedures for discretionary projects and CEQA documents.

Measure O: On a project-specific basis, the County Planning Department shall evaluate the necessity for the involvement of a qualified Native American monitor for grading or other construction activities on discretionary projects that are subject to a CEQA document.

Inyokern Specific Plan

The Inyokern Specific Plan governs land use within the community of Inyokern. The Specific Plan designates the Project site as Service Industrial, consistent with the proposed data center use, and does not identify tribal cultural resource constraints applicable to the Project site. All policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

4.17.2 Regulatory Setting

Methodology

The impact analysis for Tribal Cultural Resources was conducted using the Project Description (Section 3), the Phase I Cultural Resources Survey (Appendix B.1), the Historical Architectural Report (Appendix B.2), and the Project Site Plan (Appendix A.1).

The need for additional protective measures during project construction and operation was determined based on the findings of the Phase I survey and the status of NAHC consultation. The analytical method is consistent with CEQA Guidelines Section 15064.5 and the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could potentially have a significant adverse effect on tribal cultural resources.

A project would normally be considered to have a significant impact if it would cause a substantial adverse change in the significance of a tribal cultural resource, defined in CEQA Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- (a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or
- (b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c). In applying the criteria set forth in PRC Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

Project Impacts

Impact 4.17-1a: Would the Project have the potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k)?

Fieldwork for the Phase I survey was conducted on January 8, 2026, using pedestrian transects spaced at approximately 15 meters. The Phase I report states that six of the seven previously recorded resources that intersect the Project area were relocated and updated, and that the remaining resource was determined to be outside the Project area and was not investigated further.

The report concludes that the identified resources within the Project area are historic in age, lack integrity, and are recommended not eligible for listing in the California Register of Historical Resources (CRHR). No additional archaeological sites or historic properties were identified within the Project area during the field survey. The Historical Architectural Report similarly concludes that the surveyed built-environment resources evaluated for the Project are not recommended eligible under the CRHR criteria.

A search of the Native American Heritage Commission (NAHC) Sacred Lands Files was requested on December 22, 2025, and on January 23, 2026; the NAHC responded on March 16, 2026 with a negative Sacred Lands File result for Tribal Cultural Resources and sacred sites,

consistent with the consultant's expectation based on prior experience with Tribal outreach in the vicinity.

Mitigation Measures MM 4.17-1 through MM 4.17-5 and MM 4.5-1 through MM 4.5-6. (see Section 4.5, Cultural Resources, for Mitigation Measures MM 4.5-1 through MM 4.5-6).

With the implementation of Mitigation Measures MM 4.17-1 through MM 4.17-5, and MM 4.5-1 through MM 4.5-6, proposed Project impacts regarding tribal cultural resources would be less than significant.

Mitigation Measures: Implementation of Mitigation Measures MM 4.17-1 through MM 4.17-5 and MM 4.5-1 through MM 4.5-6 would be required. (See Section 4.5, *Cultural Resources*, for Mitigation Measures MM 4.5-1 through MM 4.5-6).

Level of Significance: Less than significant.

Impact 4.17-1b: Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in CEQA Section 21074 as a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is a resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c)? In applying the criteria set forth in PRC Section 5024.1(c), the Lead Agency shall consider the significance of the resource to a California Native American tribe.

Construction

No Tribal Cultural Resource has been identified within the Project area in the studies completed to date. The Phase I Cultural Resources Survey documents the regional context, records search, Sacred Lands File request, and field survey results; however, the report was prepared prior to receipt of the NAHC response. The NAHC responded on March 16, 2026 with a negative Sacred Lands File result; tribal outreach letters were transmitted on March 18, 2026 to all identified tribes, as documented in Section 3.1 and Section 4.5 of this Application. Copies of the Applicant's NAHC Sacred Lands File request letters (dated December 22, 2025 and January 23, 2026) have been formally submitted to the CEC under confidential cover, satisfying the requirement of Appendix B, Section (g)(2)(D)(i). Note: The NAHC responded on March 16, 2026 (negative Sacred Lands File result); tribal outreach letters were transmitted on March 18, 2026. Copies are in Appendix M.1. No written tribal responses have been received to date; rolling supplements will be filed as received per Section 3.1.

Because Tribal Cultural Resource identification may depend on information maintained by the NAHC or on information later provided by California Native American Tribes, the absence of an identified Tribal Cultural Resource in the current record does not eliminate the need for protective measures. The Applicant shall maintain the NAHC request documentation in the Project record and shall document any future NAHC response or tribal correspondence under confidential cover. If a Tribal Cultural Resource is later identified through the NAHC process, agency review, or other

information received after submission, the Applicant would implement additional avoidance, monitoring, or treatment measures, as appropriate.

Although no additional archaeological sites or historic properties were identified during the Phase I survey, ground-disturbing activities associated with Project construction could encounter previously unknown Tribal Cultural Resources or Native American human remains. If archaeological resources are encountered during excavation or grading, activity within a 100-foot radius of the find would stop and a qualified archaeologist would examine the find. Archaeological and Native American monitors would evaluate the discovery, as appropriate, to determine whether it meets the definition of a historical resource, unique archaeological resource, or Tribal Cultural Resource. If the discovery is significant, it would be avoided where feasible; if avoidance is not feasible, adverse effects would be mitigated in accordance with the recommendations of the qualified archaeologist and Native American monitor(s), as applicable. For human remains, all activity within a 100-foot radius of the discovery would stop, the Kern County Coroner would be notified immediately, and if the remains are determined to be Native American, the Coroner would notify the NAHC within 24 hours so the Most Likely Descendant process may proceed.

Operation

Ground-disturbing activities associated with Project operation and routine maintenance are not anticipated to affect Tribal Cultural Resources. Any future maintenance activities involving excavation or other subsurface disturbance would be subject to the same protective measures required during construction. With implementation of MM 4.17-1 through MM 4.17-5, potential operational impacts to previously unknown Tribal Cultural Resources or Native American human remains would be less than significant.

Mitigation Measures: Implementation of MM 4.17-1 through MM 4.17-5 and MM 4.5-1 through MM 4.5-6 would be required. (See Section 4.5, *Cultural Resources*, for Mitigation Measures MM 4.5-1 through MM 4.5-6).

Level of Significance: Less than significant.

4.17.3 Impacts and Mitigation Measures

Table 4.17-A. CEC SPPE Appendix B (g)(2) Compliance Cross-Reference

Ref.	Appendix B Requirement	Section / Table	Status
Setting and Background Requirements — Appendix B (g)(2)(A) and (B)			
(g)(2)(A)	Regional summary of ethnology, prehistory, and history; potential for buried cultural resources and TCRs	§4.17.1.1 Regional Setting	✓ Addressed

Ref.	Appendix B Requirement	Section / Table	Status
(g)(2)(B)	Literature search results; DPR 523 forms; USGS quad map with prior survey coverage; copies of qualifying prior reports	§4.17.1.1 Local Setting; Confidential App. B	✓ Addressed
(g)(2)(C)	New pedestrian survey (>5 yrs); updated DPR 523(A) forms with CRHR eligibility; 1:24,000 resource map; ARMR-format report	§4.17.1.1 Local Setting; App. B.1; Table 4.17-1	✓ Addressed
(g)(2)(C)(iii)	Updated DPR 523(A) forms with trinomial, HRI, and eligibility recommendation	Confidential Appendix B	✓ Addressed
Tribal Consultation and Mitigation Requirements — Appendix B (g)(2)(D) and (E)			
(g)(2)(D)(i)	Copy of NAHC Sacred Lands File request and any NAHC correspondence	§4.17.5.1; MM 4.17-1	✓ Addressed
(g)(2)(D)(ii)	Outreach letters to tribes listed by NAHC; copies of written responses	§4.17.5.1; MM 4.17-1	✓ Addressed (Pending NAHC response)
(g)(2)(D)(iii)	Written summaries of oral tribal responses	§4.17.5.1; MM 4.17-1	✓ Addressed (Pending tribal outreach)
(g)(2)(E)(i)	Mitigation measures for impacts to known cultural and TCRs	§4.17.4; MM 4.17-1 through 4.17-5	✓ Addressed
(g)(2)(E)(ii)	Contingency measures for unanticipated discoveries and human remains	§4.17.4; MM 4.17-2; MM 4.17-3; MM 4.17-4	✓ Addressed
(g)(2)(E)(iii)	Worker awareness training program	§4.17.4; MM 4.17-5	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(2). All criteria addressed in this chapter; full technical disclosure in Phase I Cultural Resources Survey and Historical Architectural Report (filed as supporting exhibits to this Application).

The following mitigation measures are incorporated into the Project to avoid, minimize, or mitigate potential impacts to Tribal Cultural Resources. **Table 4.17-2** provides a summary of each measure; full measure text follows.

Table 4.17-2. Summary of Mitigation Measures — Tribal Cultural Resources

Measure	Summary	Timing	Responsible Party
MM 4.17-1	NAHC request letters submitted under confidential cover; tribal outreach upon receipt of NAHC contact list; responses compiled and maintained under confidential cover	Prior to and during SPPE review	Applicant
MM 4.17-2	Inadvertent discovery stop-work (100-ft radius); qualified archaeologist evaluation; avoidance preferred; Native American monitor participation where warranted	During ground disturbance	Applicant / Qualified Archaeologist
MM 4.17-3	Human remains stop-work and notification; Kern County Coroner notification; NAHC notification within 24 hours if Native American; MLD process per PRC §5097.98	During ground disturbance	Applicant / Kern County Coroner / NAHC
MM 4.17-4	Native American monitoring during ground disturbance if warranted by discovery, NAHC information, tribal input, or agency direction	During ground disturbance, if triggered	Applicant
MM 4.17-5	Worker cultural resources awareness training (WEAP) prior to ground disturbance; covers applicable laws, resource recognition, stop-work, and notification; documented attendance; extends to maintenance personnel	Prior to ground disturbance; refresher as needed	Applicant / Qualified Archaeologist / Native American Monitor

Mitigation Measures

MM 4.17-1: NAHC Request Documentation and Tribal Outreach. The Applicant has submitted copies of both NAHC Sacred Lands File request letters (dated December 22, 2025 and January 23, 2026) to the CEC under confidential cover pursuant to Title 20, California Code of Regulations,

Section 2501 et seq., satisfying the requirement of Appendix B, Section (g)(2)(D)(i). No NAHC response has been received as of the date of submission; accordingly, no tribal outreach letters, tribal written responses, or summaries of oral responses are available at this time. Upon receipt of the NAHC contact list, the Applicant shall transmit outreach letters with a project description and map to all tribes listed by the NAHC and shall submit copies to the CEC. The Applicant shall compile all written tribal responses and maintain them under confidential cover. Written summaries of any oral tribal responses shall be prepared and submitted to the CEC under confidential cover. Any subsequent NAHC or tribal correspondence shall be maintained under confidential cover and provided to the CEC as appropriate.

MM 4.17-2: Inadvertent Discovery Procedures for Potential Tribal Cultural Resources. Prior to commencement of ground-disturbing construction activities, the Applicant shall prepare and submit an Unanticipated Discovery Plan to the Kern County Planning and Natural Resources Department and the CEC for review and approval. If archaeological materials or other potentially significant cultural materials are encountered during excavation or grading, work within 100 feet of the discovery shall be halted and a qualified archaeologist shall evaluate the discovery. Where the discovery is reasonably suspected to be of Native American origin or may qualify as a Tribal Cultural Resource, archaeological and Native American monitor participation shall be incorporated, as appropriate. Avoidance shall be the preferred treatment where feasible. If avoidance is not feasible, treatment shall be implemented in accordance with the recommendations of the qualified archaeologist and Native American monitor(s), as applicable, and approved by the CEC.

MM 4.17-3: Human Remains Procedures. If human remains are discovered during excavation or grading, all activity within 100 feet of the discovery shall stop and the Kern County Coroner shall be notified immediately. If the remains are determined to be Native American, the Coroner shall notify the NAHC within 24 hours, and treatment and disposition shall proceed in accordance with applicable law, including Health and Safety Code Section 7050.5 and PRC Section 5097.98, and the recommendations of the Most Likely Descendant, as identified by the NAHC.

MM 4.17-4: Native American Monitoring. If warranted based on an unanticipated discovery, later information received from the NAHC, subsequent tribal input, or direction from the CEC or Kern County Planning and Natural Resources Department, the Applicant shall retain a qualified Native American monitor during ground-disturbing activities in areas identified as sensitive through available information, agency direction, or discovery evaluation. The qualifications of the Native American monitor shall be submitted to the CEC for review prior to commencement of monitoring activities.

MM 4.17-5: Worker Cultural Resources Awareness Training. Prior to commencement of ground-disturbing construction activities, the Applicant shall provide worker cultural resources awareness training consistent with a Workforce Environmental Awareness Program (WEAP) prepared by a qualified archaeologist and Native American monitor, as applicable, and submitted to the Kern County Planning and Natural Resources Department and the CEC for review and approval. The training shall address applicable laws and penalties; examples of archaeological and Native American resources that could be encountered in the Project vicinity; the requirement to halt work in the vicinity of a potential discovery; and notification procedures for supervisors, the Applicant,

and appropriate specialists. Attendance shall be documented, and refresher training shall be provided as needed. This measure shall also apply to maintenance personnel involved in ground-disturbing activities.

4.17.4 Mitigation Measures

The following mitigation measures are required to avoid, minimize, or mitigate potential impacts to Tribal Cultural Resources: MM 4.17-1 (NAHC Request Documentation and Tribal Outreach), MM 4.17-2 (Inadvertent Discovery Procedures), MM 4.17-3 (Human Remains Stop-Work and Notification), MM 4.17-4 (Native American Monitoring), and MM 4.17-5 (Worker Cultural Resources Awareness Training). Full text of each measure is provided in Section 4.17.3 above and summarized in Table 4.17-2. Implementation of these measures, in conjunction with compliance with applicable federal, state, and local laws, would reduce potential impacts to less-than-significant levels.

4.17.5 CEC SPPE Appendix B — Additional Tribal Cultural Resources Disclosure Requirements

The Phase I Cultural Resources Survey (Appendix B.1) provides the regional summary of ethnology, prehistory, and history required by Appendix B, Section (g)(2)(A), with emphasis on the area within a 5-mile radius of the Project site. The survey addresses the prehistoric chronology of the Indian Wells Valley and western Mojave Desert, the ethnographic context of the Coso Shoshone and Kawaiisu, and the historical development of the Inyokern area.

The archival records search conducted at the SSJVIC in January 2026 satisfies the literature search requirement of Appendix B, Section (g)(2)(B). The search covered an area not less than 1 mile in radius around the Project site and not less than 0.25 mile on each side of the linear facilities. DPR 523 forms for all resources 45 years or older are provided in Confidential Appendix B. A USGS 7.5-minute quadrangle map delineating all prior survey coverage with CHRIS numbers is included in Confidential Appendix B.

Because prior surveys within the Project area exceeded the 5-year baseline limit under CEQA, ASM Affiliates conducted a new pedestrian survey on January 8, 2026, satisfying the new survey requirement of Appendix B, Section (g)(2)(C). The survey used 15-meter transect intervals across the full 95-acre study area including the required 200-foot buffer. Updated DPR 523(A) forms with explicit CRHR eligibility recommendations are provided in Confidential Appendix B. A 1:24,000-scale resource location map is included in Confidential Appendix B. The Phase I Cultural Resources Survey conforms to the Archaeological Resource Management Report format (OHP, February 1990).

Regional Summary, Literature Search, and Field Survey — Appendix B (g)(2)(B)(C)

Copies of the Applicant's NAHC Sacred Lands File request letters (dated December 22, 2025 and January 23, 2026) have been submitted to the CEC under confidential cover pursuant to Title 20, California Code of Regulations, Section 2501 et seq., satisfying the requirement of Appendix B,

Section (g)(2)(D)(i). As of the date of SPPE submission, no response has been received from the NAHC. Accordingly, no tribal outreach letters, tribal written responses, or written summaries of oral responses are available at this time. Upon receipt of the NAHC contact list, the Applicant shall transmit outreach letters with a project description and map to all listed tribes consistent with the requirements of Appendix B, Section (g)(2)(D)(ii). Written summaries of any oral tribal responses shall be prepared consistent with Appendix B, Section (g)(2)(D)(iii). All tribal correspondence and documentation shall be maintained under confidential cover and provided to the CEC as appropriate.

Correspondence and documentation related to any future NAHC response, tribal outreach, written responses, written summaries of oral communications, and mapping or records showing confidential cultural resource locations would be maintained under confidential cover and would not be reproduced in the public-facing Application narrative. The Phase I Cultural Resources Survey states that records search materials, NAHC materials, and confidential mapping are included in Confidential Appendix A of that report.

NAHC Consultation Documentation — Appendix B (g)(2)(D)

Mitigation measures for potential impacts to known and previously unknown Tribal Cultural Resources are provided in Section 4.17.4 and are consistent with the requirements of Appendix B, Section (g)(2)(E)(i) and (ii). MM 4.17-1 addresses NAHC consultation and tribal outreach obligations. MM 4.17-2 provides inadvertent discovery stop-work procedures, qualified archaeologist evaluation, and avoidance as the preferred treatment. MM 4.17-3 addresses the inadvertent discovery of human remains, including Kern County Coroner notification and the Most Likely Descendant process consistent with Health and Safety Code Section 7050.5 and PRC Section 5097.98. MM 4.17-4 provides for Native American monitoring where warranted. MM 4.17-5 requires a worker cultural resources awareness training program consistent with the requirements of Appendix B, Section (g)(2)(E)(iii).

4.17.6 Cumulative Setting, Impacts and Mitigation Measures

Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, and the effects of other projects located in the vicinity of the proposed Project site (PRC Section 15355). The projects included in this analysis of cumulative impacts are described in Section Appendix N.3, *Cumulative Projects*, of this Draft EIR, and include projects located in the southern San Joaquin Valley, in unincorporated Kern County, with an emphasis on the specific projects located within proximity to the Project site. This geographic scope of analysis is appropriate because the tribal cultural resources within this area are expected to be similar to those that occur on the Project site because of their proximity to, and the similar environments, landforms, and hydrology to those located on, or within proximity to, the Project site. This is a large enough area to encompass any effects of the proposed Project on cultural resources that may combine with similar effects caused by other past, current, and reasonably foreseeable future projects, and provides a reasonable context wherein cumulative actions could affect cultural resources.

As described above, the proposed Project has the potential to contribute to cumulative impacts regarding tribal cultural resources, resulting from other projects located within the same region as the proposed Project. Specifically, other projects included in the analysis of cumulative impacts involving construction activities could adversely affect tribal cultural resources, particularly previously unknown, subsurface resources that are unearthed during ground disturbance activities. However, similar to the proposed Project, each project included in the analysis of cumulative impacts which has the potential to adversely affect tribal cultural resources, would be subject to mitigation that complies with applicable state and federal laws and regulations. Mitigation measures would include (as applicable) standard conditions of approval that require monitoring of construction sites in proximity to known resources, immediate cessation of construction activity upon discovery of unidentified human remains, and the protection (in situ and/or curated in a repository) of cultural resources that are discovered, similar to those described above that would apply to the proposed Project. See Appendix N.3 (Cumulative Projects and Cumulative Impacts Analysis) for the full list of past, present, and reasonably foreseeable projects considered in the cumulative tribal cultural resources analysis.

The cumulative analysis area for Tribal Cultural Resources is the Indian Wells Valley and the broader western Mojave Desert, consistent with the regional cultural sensitivity area described in the Phase I Cultural Resources Survey (Appendix B.1). The cumulative setting encompasses past, present, and reasonably foreseeable future projects within this region that have the potential to affect cultural resources, sacred places, or broader cultural landscapes within the ethnographic territory of the Coso Shoshone and Kawaiisu.

The Indian Wells Valley region has experienced increasing development activity in recent decades, including utility-scale solar energy projects, defense-related infrastructure expansion at the Naval Air Weapons Station China Lake, and residential and commercial growth in and around the communities of Inyokern and Ridgecrest. The Project site is situated within a broader landscape that has been subject to tribal consultation and cultural resources review for multiple prior projects. Other projects within the cumulative study area are subject to the same CEQA review requirements, applicable state statutes, and Kern County General Plan policies that apply to this Project.

The past, present, and reasonably foreseeable future projects considered in this cumulative analysis are identified in Appendix N.3 (Cumulative Projects and Cumulative Impacts Analysis). The eleven projects listed in Appendix N.3 that are relevant to the cumulative tribal cultural resources analysis are summarized in **Table 4.17-CUM** below.

Table 4.17-CUM: Cumulative Projects — Tribal Cultural Resources Overlap

Project Name	Type	TCR Overlap / Consultation Basis
RB Inyokern Solar Project	Utility Solar PV	Ground disturbance in adjacent parcels; prior cultural resources survey and tribal consultation completed under CEQA

Project Name	Type	TCR Overlap / Consultation Basis
Inyokern 1203 Community Solar Farm	Community Solar PV	Ground disturbance in IWV; subject to CEQA tribal consultation requirements under AB 52/SB 18
Windhub Solar Project	Utility Solar PV	Ground disturbance in western Mojave Desert; tribal consultation required under AB 52/SB 18
Pappas Solar Project	Utility Solar PV (NOP March 2026)	Ground disturbance in IWV; CEQA tribal consultation pending; most recent addition to cumulative list
IWVGA Imported Water Pipeline	Water Supply Infrastructure	Linear ground disturbance across IWV; elevated potential for subsurface tribal cultural resources
Edwards AFB Solar Project	Utility Solar PV	Ground disturbance in western Mojave Desert; federal undertaking subject to Section 106 of the NHPA
SR-178 Rehab — Segment 1 (09-38331)	Transportation	Linear ground disturbance along SR-178 corridor; prior cultural studies completed; Section 106 applicable
SR-178 Rehab — Segment 2 (09-38330)	Transportation	Linear ground disturbance along SR-178 corridor; prior cultural studies completed; Section 106 applicable
SR-14 Shoulder Widening (09-39140)	Transportation	Ground disturbance in IWV access corridor; Section 106 consultation applicable as federal-aid project
Mojave Life of Mine Reclamation (CalPortland)	Mining/Quarry	Extensive ground disturbance in western Mojave; potential for subsurface tribal cultural resources
Coso Geothermal Complex (Units 1–3)	Geothermal (Existing Baseline)	Existing operations within Coso Shoshone traditional territory; ongoing cultural monitoring in place since 1987–1991

Each of the cumulative projects listed in **Table 4.17-CUM** involves ground-disturbing activities within the Indian Wells Valley or the broader western Mojave Desert, a region within the ethnographic territory of the Coso Shoshone and Kawaiisu. Each project is or will be subject to CEQA review and, where applicable, AB 52 tribal consultation and Section 106 of the National Historic Preservation Act, which require identification of tribal cultural resources and implementation of avoidance, minimization, or mitigation measures prior to ground disturbance.

The Project's incremental contribution to cumulative impacts on Tribal Cultural Resources would be limited. No Tribal Cultural Resource has been identified within the Project area in the investigations completed to date, no additional archaeological sites or historic properties were identified during the Phase I survey, and the identified historic-era resources within the Project area were recommended not eligible for the CRHR. The Project conforms to the applicable goals and policies of the Kern County General Plan Conservation and Open Space Element and the Inyokern Specific Plan. The mitigation measures required by this section would reduce the Project's potential contribution to cumulative impacts to a less than significant level.

Mitigation Measures: MM 4.17-1 through MM 4.17-5 and MM 4.5-1 through MM 4.5-6 would be required (See Section 4.5, Cultural Resources, for Mitigation Measures MM 4.5-1 through MM 4.5-6).

Level of Significance after Mitigation: Less than significant.

4.18 - UTILITIES AND SERVICE SYSTEMS

Introduction

This section of the Application describes the environmental setting, regulatory setting, and environmental impacts of the proposed Project related to the demand for utilities and service systems (water supply, stormwater control, wastewater, solid waste disposal, electricity, natural gas, and telecommunications). It also describes the existing infrastructure and levels of service and evaluates whether improvements would be necessary to accommodate the proposed Project and identifies mitigation measures that would reduce such impacts.

The information and analysis in this section is based in part on the relevant information from the Project Description, the Site Plan (Appendix A.1), the Hydrology Study (Appendix E.1), the Water Supply Assessment (Appendix E.3), the Air Quality Impact & GHG Analysis (Appendix F.1), the Phase I Environmental Site Assessment (Appendix J.1), the Electrical Interconnection Documentation (Appendix L series), the LORS Compliance Matrix (Appendix N.1), and provider correspondence are discussed in this section.

Detailed discussion of water demand, water supply, wastewater generation, discharge characteristics, and drainage design is provided in the Water Resources section of this Application and in the Water Supply Assessment (Appendix E.3). Detailed discussion of hazardous and nonhazardous waste management is provided in Section 4.9 Waste Management and Hazards and Hazardous Materials sections of this Application. Utility alignments, site drainage features, and related infrastructure are shown on the Site Plan and supporting engineering drawings are included in the Appendices to this Application.

This section is prepared to address the requirements of CEQA Guidelines Appendix G (Utilities and Service Systems) and the applicable information requirements of the California Energy Commission (CEC) Small Power Plant Exemption (SPPE) Appendix B. CEC SPPE Appendix B requirements applicable to this section — including Sections (g)(7), (g)(12), (g)(14), and the engineering disclosures under Section (h) — are addressed in Section 4.18.5 of this chapter.

CEC SPPE Appendix B — Section (g)(12) and (g)(14) Applicability

Section (g)(12) — Waste Management. The Application shall include: (A) A Phase I Environmental Site Assessment completed in accordance with ASTM E 1527-21 within one year prior to filing; (B) A description of the type, volume, source, and proposed method of disposal of all waste material generated during construction and operation; (C) If solid waste will be disposed of on-site, the location and classification of any on-site disposal sites; (D) If solid waste will be transported off-site, the name and location of disposal sites, their classification and operational status, their Projected remaining capacity, and their Projected closure date.

Section (g)(14) — Water Resources. The Application shall include: (C)(i) The source(s) of water supply and backup supply with rationale; (C)(ii) The physical and chemical characteristics of the source water and discharge water; (C)(iii) Average and maximum daily and annual water demand for construction and operation; (C)(iv) A detailed description of water facilities and a water mass balance diagram; (C)(v) A will-serve letter or contract confirming adequate water supply; (C)(vii) Water mass balance and heat balance diagrams for average and maximum flow conditions; (C)(viii) A will-serve letter or contract covering wastewater discharge terms. (D)(i) Monthly and seasonal precipitation and runoff patterns; (D)(ii) A description of drainage facilities and design criteria; (D)(iii) Assumptions and calculations used to estimate runoff and changes in drainage; (D)(iv) A description of applicable drainage requirements. (E)(i) Effects of proposed facilities on water supply and other users; (E)(iii) Effects on water quality during construction and operation and BMPs to minimize impacts; (E)(iv) Effects of wastewater disposal on receiving waters and ZLD analysis; (E)(vi) Effects of the proposed facilities on the 100-year flood plain.

Engineering disclosures under Section (h)(1)(D)(iii), (h)(2)(A)/(B), (h)(3)(A), and (h)(4)(B)/(C)/(F) are also applicable to this chapter and are addressed in Section 4.18.5.

All Section (g)(12) and (g)(14) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.18.1–4.18.4. The Appendix B supplemental disclosure is provided in Section 4.18.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.18-A, immediately preceding Section 4.18.4.

4.18.1 Environmental Setting

Geographically, Kern County (County) is California’s third largest county, encompassing 8,161 square miles at the southern end of the Central Valley. The county is bounded by Kings, Tulare, and Inyo Counties to the north; Santa Barbara and San Luis Obispo Counties to the west; San Bernardino County and the Tehachapi Mountains and the Sierra Nevada Mountains to the east; and Los Angeles and Ventura Counties and the northern boundary of the Los Padres National Forest to the south.

The Project would require utility and service systems typical of a hyperscale data center facility, including electric power, water supply, wastewater service, stormwater drainage facilities, natural gas service, telecommunications infrastructure, and solid waste and recycling service. **Table 4.18-1** provides a summary of each utility system, the responsible provider or entity, the planned service basis, and the key approval or coordination pathway applicable to the Project.

Table 4.18-1 - Utility and Service Systems Summary

Utility / Service	Provider / Responsible Entity	Existing / Planned Service Basis	Key Project Feature or Demand Basis	Key Approval / Coordination
Water Supply	Inyokern CSD; one onsite backup well	CSD will-serve letter; Water Supply Assessment; onsite backup supply/storage	36.83 to 49.10 acre-feet per year; cooling tower makeup is the largest demand component	Water Service Agreement; CSD review; final engineering; applicable IWVGA/SGMA and environmental review
Wastewater	Inyokern CSD	CSD will-serve letter; pretreatment review may apply	Preliminary average dry weather flow approximately 6,670 gpd; cooling tower blowdown may require characterization	CSD review; Wastewater Characterization Report; possible Significant Industrial User determination
Stormwater Drainage	Applicant; Kern County / Kern County Flood Control and Water Conservation District	Onsite retention and grading	Approximately 2.2 acre-feet of retention volume estimated under County criteria	Grading/drainage approval; SWPPP; Construction General Permit coverage
Electric Power	Southern California Edison	SCE interconnection / Method of Service process	Customer-dedicated substation and tie line; final service design through utility review	SCE Method of Service; final interconnection engineering
Natural Gas	Pacific Gas and Electric Company	Preliminary screening-level feasibility	Nearby transmission service feasibility identified; final service needs subject to design	PG&E utility engineering and service review

Utility / Service	Provider Responsible Entity	Existing / Planned Service Basis	Key Project Feature or Demand Basis	Key Approval / Coordination
Telecommunications	Onward / Digital 395 backbone access	Redundant onsite connection	432 strands in three conduits; north and south diverse routes	Final utility and telecom design and service coordination
Solid Waste / Recycling	Authorized franchise haulers	Typical construction and operational waste handling	Construction debris, municipal solid waste, recyclables, maintenance-related waste	Compliance with state and local waste requirements and authorized collection/disposal arrangements

Source: Applicant Project record; Inyokern CSD executed Will-Serve Letter (April 2, 2026); Water Supply Assessment (Appendix E.3); SCE Method of Service Study MOS174 (March 30, 2026).

Water Supply

There are typically two sources of supply water for development: (1) natural sources, and (2) manmade sources. Natural sources include rivers, lakes, streams, and groundwater stored in aquifers. Manmade sources include runoff water that is treated and stored in reservoirs and other catchment structures.

A public water system is a system that provides water for human consumption through pipes or other constructed conveyances as a system that has 3,000 or more service connections. A public water system may be publicly or privately owned for the purpose of rendering it safe for human consumption, and includes collection, treatment, storage, and distribution facilities. An Urban Water Supplier refers to a water supplier, either public or private, that provides water for municipal purposes directly or indirectly to over 3,000 customers, or supplies more than 3,000 acre-feet (AF) of water per year. The Project site has no connection to a public water system, serving 3,000 or more service connections, nor an urban water supplier who serves 3,000 customers or supplies more than 3,000 acre-feet per year (AFY) as defined by the California Water Code (CWC) Section 10912. An agricultural water supplier is a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. This includes a supplier or contractor for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. Per CWC Section 10826, agricultural water suppliers, similar to urban water suppliers, must submit an Agricultural Water Management Plan (AWMP) to the Department of Water Resources (DWR), including a description of the service area, quantity and quality of water supplies, annual water budget, analysis of the effect of climate change on supplies, description of water management activities, identification of water management objectives, information on efficient water

management practices, and quantification of the efficiency of agricultural water use.

The Project site is located within the service area of and will be supplied by the Inyokern Community Service District. To meet Tier III requirements for data centers, the Project will also have access to an on-site private well and water storage tanks for emergency fire suppression and redundancy. The Inyokern Community Services District (CSD) in California does not provide water to more than 3,000 people and thus, according to California Water Boards classification, the district is classified as a small community public water system which serves approximately 782 residents through approximately 265 service connections.

On June 6, 2025, the State Water Resources Control Board (State Water Board), Division of Drinking Water, issued a letter to the CSD expressing concerns about the current and future operations of CSD. The cited deficiencies included unsafe drinking water for the residents of the water system and the ability of Inyokern CSD to sustainably provide safe and affordable supply of drinking water into the future. Therefore, the State Water Board strongly recommended that CSD voluntarily consolidate with Indian Wells Valley Water District (IWVWD).

The State Water Board may take future steps to order the consolidation if it is not voluntarily negotiated in a timely manner. Prior to issuing an order directing the Indian Wells Valley Water District to consolidate with Inyokern CSD, California Health and Safety Code (CHSC) Section 116682, subd. (b)(1) requires the State Water Board to encourage voluntary consolidation. Section 116682, subd. (b)(7)(A) also requires the State Water Board to notify both Inyokern CSD and Indian Wells Valley Water District and to establish a deadline of no less than six months, unless a shorter period is justified, to negotiate consolidation. This letter serves as official notification that pursuant to CHSC Section 116682(b), Inyokern CSD is to negotiate with Indian Wells Valley Water District regarding managerial and physical consolidation of Inyokern CSD with Indian Wells Valley Water District. The deadline for completion of this negotiation was December 12, 2025. As of the Application filing date, voluntary consolidation negotiations between the CSD and IWVWD remain ongoing and unresolved. The parties engaged in communications through at least November 2025; the CSD submitted a Joint Powers Authority framework proposal that IWVWD rejected, and no agreed consolidation milestones or joint reporting to the State Water Board had been completed by the December 12, 2025 deadline. The State Water Board retains authority under California Health and Safety Code Section 116682 to order mandatory consolidation if voluntary negotiations do not succeed. In the event of a consolidation order, IWVWD would likely become the successor water provider for the Project area; however, the April 2, 2026 CSD executed Will-Serve Letter (Appendix M.3) remains in effect as the current basis for Project water service planning. The Project's water supply analysis and will-serve documentation would be updated to reflect any change in provider prior to final Project approvals, consistent with the conditions of service identified in Appendix M.3.

The IWVWD is a public water system that provides water directly to far more than 3,000 people and serves approximately 30,000 residents, primarily in the city of Ridgecrest and surrounding areas of Kern and San Bernardino counties, utilizing over 11,000 active service connections.

The South Lahontan Hydrologic Region

The California DWR has divided the State into 10 Hydrologic Regions. The Project site is located within the South Lahontan Hydrologic Region in a Basin ranked as “high priority” in a statewide ranking of groundwater importance. Additionally, the Basin is listed as being in “critical overdraft.” The Region encompasses approximately 26,700 square miles (see Water Supply Assessment, Figure 1-4).

The Indian Wells Valley Groundwater Subbasin

The Project site is located above the South Lahontan Hydrologic Region, for which the IWVGA is the principal groundwater management agency. Groundwater in the Basin will be used to supply water for the Project. The Indian Wells Valley Subbasin is the specific groundwater subbasin in which the Project resides and has a surface area of approximately 382,000 acres (see Water Supply Assessment, Figure 2-1 – Basin 6-54). The internally drained basin is located east of the southern Sierra Nevada and is bounded by the Coso Range to the north, Argus Range to the east, and El Paso Mountains to the south. The basin is filled with sediment eroded from the surrounding highlands to an average depth of 4,000 feet, although the sediment can be as thick as 7,000 feet in the western portion of the valley. As of 2010, the DWR estimated the total water supply for the subbasin is 30,000 acre-feet.

On January 16, 2020, the Indian Wells Groundwater Authority (IWGWA) released the Groundwater Sustainability Plan for the Indian Wells Valley Groundwater Basin. This report describes groundwater conditions in the Indian Wells Valley, including groundwater levels and quality. This report documents water use for historical, current and potential future conditions. One of the major findings of this report was that the Indian Wells groundwater basin has been in overdraft since the 1960s (IWVGA, 2020). The basin is also one of 21 groundwater basins identified by the State as in a critical condition of overdraft (DWR, 2016a).

Prior to the Sustainable Groundwater Management Act (SGMA), the primary method for solving groundwater disputes and protecting groundwater basins was litigation. When over-pumping led to a crisis like seawater intrusion or chronic overdraft, people had little choice but to file a lawsuit—called an adjudication—in which all rights to water in a basin could be defined by a court. SGMA now ensures that basins can be managed sustainably through local management plans. In October 2015, Governor Brown signed legislation that provides a comprehensive adjudication process for all groundwater basins that are regulated under the SGMA (DWR, 2016b). Groundwater basins that have been adjudicated by court decision are subject to management by a court-approved Watermaster.

The magnitude of the Basin’s overdraft indicates that recovery cannot be achieved with conservation or water recycling alone without jeopardizing beneficial uses; importation of supplemental water is needed. The Basin is not adjudicated meaning groundwater rights have not been defined for the parties withdrawing water from the Basin. Adjudication of the Basin would be costly, and since the Indian Wells Valley does not presently have access to imported water, adjudication would result in severe reductions in pumping by all users.

Currently, the Indian Wells Groundwater Basin does not have any adjudicated areas. However, The Indian Wells Valley Water District has filed a water rights lawsuit to resolve the long-standing conditions in the IWV Groundwater Basin where water use has exceeded groundwater supply for years. This water rights lawsuit is called a “comprehensive adjudication.” The District has sued all persons who own property overlying the Basin or claim a right to pump or store water in the Basin so that all persons with an interest in the Basin can be involved to assert any rights. The adjudication process is not expected to be resolved until after 2026.

However, the IWVGA drafted a Groundwater Sustainability Plan (GSP) for the basin in accordance with SGMA. The GSP discusses Basin management strategies that will culminate in the absence of undesirable and unsustainable Groundwater conditions in the IWVGB. The GSP recommends management actions and Projects and provides measurable sustainability objectives and milestones that are intended to achieve Basin sustainability while considering the unique geologic and hydrogeologic conditions of the IWVGB. The recommendations in the GSP are designed to provide for long-term sustainable groundwater management in the IWVGB within 20 years of GSP implementation.

The GSP was adopted via Resolution 01-20 by the IWVGA Board on January 16, 2020. The DWR found the Indian Wells Valley Basin plan to be approved in its February 2022 announcement of 2020 plan determinations. While other basins (such as those in the Kern County Subbasin) received "Incomplete" or "Inadequate" determinations, the IWVGA GSP was among those approved.

Wastewater

The Inyokern CSD provides wastewater treatment to approximately 365 connections within the Indian Wells Valley. Wastewater is conveyed to the Inyokern CSD wastewater treatment plant located approximately 1 mile north of the community of Inyokern. The treatment plant has an estimated maximum treatment capacity of 150,000 gallons per day, and currently receives about 45,000 gallons per day on average. The wastewater treatment facility is currently utilizing approximately 30% of its total capacity. Due to the number of connections and the volume of water delivered, the Inyokern CSD is not required to issue an Urban Water Management Plan (UWMP).

The unincorporated parts of the Indian Wells Valley area that do not have a sewer line connection utilize septic systems to treat household, commercial, and industrial wastewater. Septic system treatment first separates sludge from wastewater effluent in the septic tank, then allows liquid effluent to percolate in spreading grounds to be filtered by the soil. Septic tanks are emptied regularly by private County certified waste haulers. Runoff from agricultural operations is allowed to infiltrate as agricultural return flows into the ground and does not require treatment.

Inyokern Community Services District Executed Will-Serve Letter (April 2, 2026)

The Applicant is requesting the site to be annexed into the Inyokern Community Services District (Inyokern CSD or District) jurisdictional boundaries, in order to provide domestic and sewer

services. The Project site is currently located within the Sphere of Influence (SOI) of the CSD). Municipal water would be the primary water source for the Project.

An additional on-site well is proposed in the northeastern corner of the Project Site and two water treatment facilities are proposed, one in the northwest corner of the Project site and the other is proposed in the southeast area of the Project site. The well and on-site water treatment facility will also be developed for supplemental and fire suppression purposes. The Project will include four on-site storage tanks, two 142,000 gallon and two 52,000 gallon, with a combined capacity of 388,000 gallons which would be used in the event of a supply interruption from the Inyokern CSD water source and for emergency fire suppression. These systems are intended to reduce reliance on the municipal district during periods of peak demand or emergency conditions. Wastewater and sewage may be processed through the Inyokern CSD or an industrial on-site industrial septic system.

On April 2, 2026 the Inyokern Community Services District (the “District” as referenced in this sub-section) issued an executed Will-Serve Letter (April 2, 2026) regarding water and sewer service to the Project (attached as Appendix M.3, hereafter the “CSD Will-Serve Letter”), based on the information below and contingent upon compliance with all applicable California Energy Commission (CEC), Kern County, Indian Wells Valley Groundwater Authority, District, and other applicable regulatory agency rules, regulations, capacity fees, connection requirements, and environmental review obligations as further described below.

The CSD “Will-Serve Letter” and Applicant’s request for the Will-Serve Letter and related correspondence are submitted to the CEC as confidential information.

Project Description

- Project Name: RB Inyokern Data Center Applicant / Developer: R & L Capital, Inc.
- General Plan/ Zoning: Industrial/ M-2 PD
- Proposed Use: Data Center
- Total Site Area: Approx. 50 acres
- Total Building Area (Gross): 238,000 sq. ft.
- IT Load (Critical Power): Phase 1: 60 MW; Ultimate Build-Out: 99 MW
- Cooling System Type: Conceptual Design- Hybrid dual chilled-water plant setup with air-cooled chillers plus adiabatic (tower) assist, feeding CRAH units in the IT suites, with liquid-assist capability for HPC racks
- Planned Construction Start: April 2027
- Estimated Occupancy: 2030 - 2031 full scale operations, Mid-2028 (temporary service, preliminary - commissioning); 2029 (full 99 MW service)

- Design Envelope. The water demand and wastewater flow estimates in this letter are based on the IT loads stated above and a Power Usage Effectiveness (PUE) of 1.41 ($\pm 10\%$). So long as the Project remains within $\pm 10\%$ of these parameters, the District's preliminary findings regarding system capacity and infrastructure herein shall remain applicable, subject to applicable law.

Water Service

Estimated Water Demand

Based on the Project description and supporting hydraulic calculations submitted by the Applicant, the District has estimated the following water demands:

- Average Day Demand (ADD): Approx. 40,430 GPD (28.1 GPM)
- Maximum Day Demand (MOD): Approx. 60,645 GPD Peak Hour Demand (PHD): Approx. 101,075 GPD Fire Flow Requirement: 3,000 GPM @ 20 psi residual Fire Flow Duration: 4 hours minimum
- Cooling Tower Makeup Water: Approx. 28,500 GPD (dominant demand driver)
- Potable Domestic/ Sanitary: Approx. 1,900 GPD
- Irrigation/ Landscaping: Approx. 500 GPD
- Demand estimates are preliminary and based on the MW of critical IT load identified in Section 1 with an assumed Power Usage Effectiveness (PUE) of 1.41 ($\pm 10\%$). Final demands shall be verified by Applicant's licensed civil engineer and confirmed by the District prior to issuance of a Water Service Agreement. If verified final demands remain within the Design Envelope in Section 1, no further capacity re-evaluation shall be required, subject to applicable law.

Meter and Service Requirements

The following meters and service connections are anticipated: (a) domestic potable service and (b) fire service. Applicant and District will determine meter sizes and locations during design review.

Sewer Service

Estimated Wastewater Flow

- Average Dry Weather Flow (ADWF): Approx. 6,670 GPD
- Peak Wet Weather Flow (PWWF): Approx. 2.5 x ADWF for pipeline sizing Prime Discharge Source: Sanitary/ domestic (restrooms, break rooms, locker facilities).
- Secondary Discharge Source: Cooling tower blowdown (requires pretreatment evaluation)

- HVAC Condensate: Volume TBD at final engineering. This letter assumes primary routing of all sanitary wastewater to the District's collection system. If Applicant proposes to route any portion of the wastewater stream to an on-site industrial septic or other alternative disposal system, Applicant shall notify the District in writing and obtain District concurrence prior to permitting. This letter does not authorize partial service or split-routing arrangements without a separate written amendment.
- Industrial Pretreatment

The District operates a publicly owned treatment works (POTW) subject to the pretreatment standards established under 40 C.F.R. Part 403 and state law. Cooling tower blowdown may contain concentrations of conductivity, total dissolved solids, corrosion inhibitors, and biocides that require evaluation. Applicant shall submit a Wastewater Characterization Report to the District no later than 120 days prior to issuance of the first building permit for the Project.

Within 45 days of receipt of a complete report, the District will provide interim numeric acceptance criteria (e.g., conductivity/TDS, phosphate/phosphonate, molybdate, biocide residuals, and any applicable metals) sufficient to support basis-of-design and permitting. The District will determine whether a Significant Industrial User (SIU) permit is required. Battery energy storage systems (BESS) present on site shall be assessed for potential fluoride, lithium, and PFAS contributions to the waste stream. If the Applicant's blowdown meets the District's interim criteria and any SIU permit conditions, no additional pretreatment beyond the specified controls will be required.

System Capacity And Infrastructure

The District has conducted a preliminary capacity review of its water distribution and wastewater collection systems in the vicinity of the Project. Based on currently available system data, the District has sufficient capacity to serve the Project subject to the following findings and conditions:

Water Supply: Water Supply — CSD Infrastructure Extensions. Prior to issuance of grading permits, the Applicant shall coordinate with the Inyokern Community Services District (CSD) to confirm final water main extension requirements necessary to provide adequate fire flow and domestic pressure to the Project site. The Applicant shall design and construct all required extensions at the Applicant's sole cost and in accordance with District standards. If the District requires oversizing beyond Project need, the parties shall execute a Water Supply Agreement and reimbursement agreement consistent with Section 5.6 of the CSD Will-Serve Letter (April 2, 2026) (Appendix M.3) prior to commencement of construction on the extension.

According to the Water Supply Assessment (WSA) (Appendix E.3): [The] This WSA has provided the data and analysis needed to verify that a sufficient Project water supply is physically available (Section 3.1) and that the Project water supply is in accord with SB 610's normal year/dry-year/multiple-dry year requirements, sufficient (Section 3.2). The maximum water demand for this Project is estimated at 49.10 acre-feet/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. This conclusion is based on the fact that maximum water demand for this Project is estimated at 49.10 acre-feet (16 MG)/year or 0.185% of the projected available yearly supply of

26,511 acre-feet. The Project will have very little impact on groundwater use in the area. Compliance with the DWR Guidelines for the Project is included in Appendix C [of the WSA]. It is recommended that the County of Kern conclude that the proposed water supplies for the Project are sufficient to meet the projected Project water demand. (emphasis added)

Distribution System: Water Supply — CSD Infrastructure Extensions. Prior to issuance of grading permits, the Applicant shall coordinate with the Inyokern Community Services District (CSD) to confirm final water main extension requirements necessary to provide adequate fire flow and domestic pressure to the Project site. The Applicant shall design and construct all required extensions at the Applicant's sole cost and in accordance with District standards. If the District requires oversizing beyond Project need, the parties shall execute a reimbursement agreement consistent with Section 5.6 of the District's executed Will-Serve Letter (April 2, 2026) (Appendix M.3) prior to commencement of construction on the extension.

Wastewater Collection: Existing trunk sewer facilities are preliminarily found to have sufficient capacity; however, upsizing of the lateral connection may be required based on final hydraulic modeling.

Water Storage: Applicant may need to provide additional storage capacity; however, Applicant shall verify hydro-pneumatic or on-site pressure zone requirements with the District's Engineer. The District notes that Applicant proposes on-site water storage of approximately 388,000 gallons and a supplemental on-site well for emergency and fire suppression purposes. To the extent these private systems reduce demand on District facilities during peak periods, that reduction shall be reflected in the final hydraulic analysis, subject to District Engineer review and approval. The Applicant's private well and storage shall not be interconnected to the District's potable distribution system without prior District approval and cross-connection controls in compliance with CCR Title 17.

Treatment Capacity: The District's treatment facility has available capacity to accept the Projects Projected flows as of the date of this letter. Capacity reservations are subject to current Connection Fee agreements as further described in Section 6.

Fire Flow Coordination: Upon receipt of 30% utility plans, the District will provide preliminary confirmation of required off-site main sizes/looping and any on-site storage or pumping needed to achieve 3,000 gpm at 20 psi for 4 hours, within 45 days.

Conditions Of Service

The letter does not constitute a binding service agreement, a vested right to service, or a commitment to waive any applicable fee or regulatory requirement. The Will Serve Letter is conditioned upon Applicant's full compliance with each of the following requirements:

- Applications and Agreements,
- Fees and Charges,

- Environmental Review [CEC review as CEQA Lead Agency including analysis of water supply impacts pursuant to Water Supply Assessment (WSA) requirements under Water Code §10910 et seq., if applicable]. Should the Project trigger a WSA, Applicant shall provide written notice to the District no less than 120 days prior to the Lead Agency's public hearing to allow preparation of the assessment. Upon receipt of a complete WSA application and payment of applicable fees, the District will provide a draft WSA within 60 days, subject to statutory timelines. Service may be conditioned upon mitigation measures identified in the environmental review.
- Water Conservation and Efficiency Requirements
- Additional Requirements
- Oversizing Reimbursement; Assignment; Design Envelope & Fee Lock

Stormwater Drainage

The majority of the Indian Wells Valley is undeveloped; therefore, stormwater runoff typically runs as sheet flow or in ephemeral drainages, eventually infiltrating into soil. The Project site is relatively flat, with an elevation of approximately 2430 to 2420 feet above mean sea level (amsl).

The Project Site and adjacent area is mostly native, undisturbed habitat. There are some scattered, low-density residential properties to the South and a small area of commercial, industrial, and residential properties to the West on the west side of Brown Road. Inyokern has industries including solar energy, mining, agriculture, retail trade, and various support services. Immediately adjacent to the Project Site is a gas station and hardware store along CA SR-178.

Based on the groundwater elevation data from the California Department of Water Resources (DWR), the groundwater depth in the vicinity of the Project Site is approximately 300 feet (ft). Since the depth to groundwater is greater than 50 ft, the potential for liquefaction, lateral spread of liquefaction induced ground collapse is very low.

As discussed in the Hydrology and Water Quality Study (Appendix 4.10; hereafter the “Hydrology Study”), based on the soil borings of the Geotechnical Engineering Report, it is reasonable to assume the hydrologic soil group of the Project Site is primarily Soils Group A due to the Silty Sand and Poorly Graded Sand and Silt soil classifications. Soils Group A are characterized by soils having high infiltration rates even when thoroughly wetted, consisting chiefly of deep, well to excessively drained sands or gravel. The soils have high water transmission and low runoff potential. These soils, which are prevalent in the streambeds and on-site areas, are excellent for storm water retention basin use. However, no infiltration tests were performed as a part of the report, therefore, the hydrologic soil group will need to be confirmed when the Geotechnical Report for the Project Site is completed as part of construction permitting.

The Project Site is located within a Zone A FEMA special flood hazard area shown in Figure 4-1. Zone A flood hazard areas are subject to inundation by the 1% annual chance of flood; however, no base flood elevation is determined. The flood water in the Project area is the result of being

adjacent to Little Dixie Wash, located south of the Project site approximately 8,000 ft away. Flow across the Project site was modeled without infiltration because soil data was unavailable. As a result, the hydraulic model provides conservative estimates. The mapping and modelling results reported in the As discussed in the Hydrology and Water Quality Study indicate that floodwater from Little Dixie Wash does not reach the Project area (see Figure 4-4, Hydrology and Water Quality Study)

The maximum water depth and velocity on the site is caused by accumulation and transport from the 100-year, 24-hour rainfall event (Figure 4-5 and 4-6, As discussed in the Hydrology and Water Quality Study) Within the Project site, water depth does not exceed 1.0 ft, except in a localized depression in the northwest corner. No development is planned in this area, and the increased depth is due to the depression rather than a watercourse or other hydrologic feature. Therefore, it is recommended to assume a flood depth of 1.0 ft above existing or finished grade to comply with FEMA Floodplain Map Zone A requirements.

Landfills

The Kern County Public Works Department operates seven recycling and sanitary landfills throughout the County. Landfills are located in Bakersfield, Boron, Mojave-Rosamond, Ridgecrest, Shafter-Wasco, Taft, and Tehachapi. The Project would likely be served primarily by the Ridgecrest Recycling and Sanitary Landfill (RSLF) located at 3301 Bowman Road in the City of Ridgecrest, approximately 5 miles southeast of the Project site. This Class III landfill accepts clean inerts (e.g., source separated asphalt, brick and concrete; C&D waste, including asphalt, brick, concrete, dirt, and metal); dead animals; electronic waste for recycling; greenwaste; ordinary household trash; tires; and treated wood waste (e.g., grape stakes, utility poles; foundation lumber); and used motor oil. The landfill does not accept hazardous waste, hot ashes, and liquids of any kind.

According to CalRecycle, as of the end of 2023, RSLF had approximately 102,300,000 cubic yards capacity remaining of a total of 117,400,000 cubic yard maximum capacity. The ceased operation date of the RSLF is January 1, 2080.

Other nearby landfills in the Project vicinity are the Boron Sanitary Landfill, a Class III landfill which is approximately 47 miles south of the Project site at 11400 Boron Avenue in Boron, and the Mojave-Rosamond Recycling and Sanitary Landfill, which is located at 400 Silver Queen Road in Mojave, approximately 48 miles southwest of the Project site. Landfill locations, capacity, and anticipated closure dates are presented in **Table 4.18-2**, Summary of Kern County Public Works Landfills.

TABLE 4.18-2
SUMMARY OF KERN COUNTY PUBLIC WORKS LANDFILLS

Landfill	Distance from Project Site	Permit Capacity	Remaining Capacity (cubic yards)	Maximum Permitted Throughput (tons/day)	Ceased Operation Date
Ridgecrest Recycling and Sanitary Landfill 3301 Bowman Road Ridgecrest	5 miles (southeast)	10,500,000 (cubic yards)	4,283,343	701	2050
Boron Landfill 11400 Boron Ave Boron	47 miles (south)	1,057,000 (cubic yards)	94,851	200	2048
Mojave-Rosamond Recycling and Sanitary Landfill 400 Silver Queen Rd. Mojave	48 miles (southwest)	78,000,000 (cubic yards)	76,310,297	3,000	2123

SOURCE: CalRecycle

Electricity

Electric service is provided regionally by Southern California Edison Company (SCE). Electric service for the Project would be provided by SCE through an SCE owned and operated 115 kV customer-dedicated ring bus substation interconnecting with SCE's existing Inyokern 115 kV Substation via two (2) 115 kV overhead subtransmission lines with associated fiber-optic communication cables located within two separate transmission line corridors per SCE MOS174 (March 30, 2026) and Section 2 of this Application. Route 1 of these corridors will be approximately 8,000 linear feet and Route 2, approximately 4,000 linear feet. SCE operating specification, per MOS174, provides 2N utility redundancy to the Project.

The SCE owned customer dedicated substation 115 kV bus will connect to the Project owned 115 kV substation bus via a single short over-the-fence 115 kV tie line. The Project's main 34.6 kV bus will be served through two Project owned 115/34.6 kV 60/80/100 MVA step-down transformers from the Project Substation 115 kV ring bus.

On March 30, 2026, SCE issued a Method of Service Study ("MOS Study") to analyze the Project's impact on SCE system and to provide technical requirements, estimated costs, and schedule for

the installation of the new 115 kV SCE customer dedicated substation. The SCE Transmission Planning group evaluated the Customer load interconnection request for 99 MW. The potential plan of service covered the requirements for:

- The Inyokern 115 kV Substation as POI,
- The 115 kV SCE transmission system serving the Inyokern 115 kV Substation,
- The one 115 kV customer dedicated ring bus substation, and
- The two (2) 115 kV subtransmission lines with associated fiber-optic communication cables between the Inyokern 115 kV Substation and the one 115 kV customer dedicated substation.

Per MOS Study, the Project will own and operate its own transformer and feeders and will be responsible to complete necessary environmental licensing starting from the SCE owned customer dedicated substation.

Based on the power flow analysis, no adverse system impacts or required system upgrades on the SCE 115 kV transmission system serving the Inyokern 115 kV Substation were identified under contingency (P1-P7) conditions. The analysis included Transmission Planning Process approved upgrades modeled in the base case for all study years.

The MOS Study notes that future modifications to system topology, Project configuration, or customer load characteristics may necessitate a restudy to confirm continued system adequacy.

MOS Study notes that if the requested in-service date requested by the Applicant is deemed unfeasible the SCE Project execution team will make commercially reasonable efforts to expedite the estimated in-service date.

Finally, MOS Study notes that the interconnection design and service requirements would be confirmed through SCE's Method of Service process and applicable utility review procedures. Electrical interconnection documentation, including the Project one-line, point of interconnection location, and substation one-line, is provided in the Appendix L series.

The SCE Method of Service Study ("MOS Study") and Applicant's request for the MOS Study and related correspondence are submitted to the CEC as confidential information.

Natural Gas

Natural gas service is provided regionally by Pacific Gas & Electric Company (PG&E). Natural gas service feasibility has been evaluated at a screening level by PG&E which indicated that the Project can be served from a nearby transmission main and that the requested load is feasible. Although natural gas service is available and was evaluated, it was not selected as the primary redundancy approach for the Project. Any limited natural gas service needs would be finalized during utility engineering and provider review. Any limited natural gas service needs would be finalized during utility engineering and provider review; noting, however, that due to earthquake risk the Applicant does not intend to rely on natural gas for IT-critical systems.

Telecommunications

Fiber service will be provided by Onward via a redundant, carrier-diverse network with independent north and south routes and direct access to the Digital 395 fiber. The system includes 432 strands in three underground conduits, scalable from 1–100 Gbps, with ~6 ms RTT to Los Angeles. The fiber tie-in location is onsite, providing direct integration with the facility's network architecture.

Based on currently available information, telecommunications service would be provided through an onsite connection and the current record does not indicate the need for major offsite telecommunications expansion beyond normal connection facilities.

Solid Waste

Solid waste generally refers to garbage, refuse, sludge, and other discarded solid materials that come from residential, industrial, and commercial activities. Construction, demolition, and inert wastes are also classified as solid waste. Such wastes include nonhazardous building materials such as asphalt, concrete, brick, drywall, fencing, metal, packing materials, pallets, pipe, and wood. The general waste classifications used for California waste management units, facilities, and disposal sites are outlined below. Nonhazardous solid waste consists of organic and nonorganic solid, semi-solid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid wastes, and other discarded waste, provided that such wastes do not contain hazardous materials or soluble pollutants in concentrations that would exceed applicable water quality objectives or cause a degradation of waters of the State.

Construction and demolition (C&D) waste is heavy, inert material. This material creates significant problems when disposed of in landfills. Because C&D waste is heavier than paper and plastic, it is more difficult for counties and cities to reduce the tonnage of disposed waste. For this reason, C&D waste has been specifically targeted by the State of California for diversion from the waste stream. Projects that generate C&D waste should emphasize deconstruction and diversion planning rather than demolition. Deconstruction is the planned, organized dismantling of a prior construction Project, which allows maximum use of the deconstructed materials for recycling in other construction Projects and sends a minimum amount of the deconstruction material to landfills.

California State law regulates the types of waste that can be disposed of at the different classes of landfills. Class I landfills may accept hazardous and nonhazardous wastes. Class II landfills may accept designated and nonhazardous wastes, and Class III landfills may accept nonhazardous wastes.

The Project would generate construction debris and operational waste streams typical of a hyperscale data center facility, including municipal solid waste, recyclable materials, packaging, scrap materials, concrete, steel, and periodic maintenance-related wastes. Solid waste and recycling service would be provided through authorized or franchised collection and disposal

services in accordance with applicable state and local requirements. Based on the current Project description, no unusual waste stream or exceptional disposal demand has been identified in this section.

Hazardous Waste

A Phase I Environmental Site Assessment (ESA) was completed for the Project site by BSK Associates in accordance with ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Designation E 1527-21). The Phase I ESA was completed within one year prior to the filing of this Application. The ESA identified six Recognized Environmental Conditions (RECs) in total: three on-site RECs associated with a former on-site structure, asphalt debris, and discarded tires; and three vicinity RECs associated with adjacent properties. No Controlled RECs, Historic RECs, or Vapor Encroachment Concerns were identified. The Project site is not listed on the Cortese List or other hazardous materials site databases maintained by DTSC or the SWRCB. The Phase I ESA is submitted to the CEC as Appendix J.1. Elements of the Phase I ESA findings relevant to site conditions and the identified RECs are incorporated into the Waste Management and Hazards and Hazardous Materials sections of this Application.

Hazardous waste, universal waste, and other regulated waste streams that may be generated during operation would be managed in accordance with applicable state requirements, including Title 22 of the California Code of Regulations, and through licensed transporters and authorized disposal or recycling facilities, as applicable. Compliance with state solid waste reduction and recycling requirements would occur through Project-specific waste handling procedures and applicable contractor and operational requirements. Additional discussion of hazardous and nonhazardous waste handling is provided in the Section 4.9 Hazards and Hazardous Materials Section of this Application.

Other Utility-Related Infrastructure

The Project includes cooling-related infrastructure and associated water treatment systems typical of hyperscale data center operations. The cooling architecture consists of dual chilled-water plants (east and west), each configured with air-cooled chillers in an N+1 configuration, dual chilled-water supply and return mains feeding 144 Computer Room Air Handler (CRAH) units across all data hall suites, and plate-and-frame heat exchangers for liquid-assisted rack cooling. Adiabatic towers handle approximately 20 percent of heat rejection. The system is designed to support up to approximately 20,000 gallons per day for adiabatic operation and targets a baseline Power Usage Effectiveness of approximately 1.41. Water makeup and treatment systems include on-site wells, reverse osmosis and/or softening treatment skids, and dual storage tanks providing approximately 388,000 gallons of on-site buffer supply ($2 \times 142,000$ -gallon and $2 \times 52,000$ -gallon tanks). Cooling tower makeup water represents the dominant operational water demand, consistent with the CSD's preliminary estimate of approximately 28,500 gpd. Cooling tower blowdown would be treated following a customized water treatment plan and is subject to pretreatment characterization prior to discharge to the CSD system, as identified in the will-serve letter. The Project is not designed as a zero liquid discharge facility; conventional cooling tower blowdown discharge to the CSD's publicly owned treatment works is the preferred approach because zero liquid discharge treatment

systems at the required scale would impose substantial capital and operational costs that are disproportionate to the environmental benefit, given the CSD's available treatment capacity and the applicable federal pretreatment framework under 40 Code of Federal Regulations Part 403.

The Project includes emergency backup power systems supported by onsite fuel storage and transfer infrastructure. The backup generation system consists of two generator yards (east and west), each containing twenty Caterpillar 3516E diesel generator sets (40 total) in an N+1 configuration per yard, for a total nameplate capacity of approximately 120 MW serving the 99 MW campus load (70 MW IT + 29 MW non-IT). N+1 per yard means one unit per yard is the designated standby redundancy unit; not all 40 generators operate simultaneously under any operational scenario. Fuel storage consists of two containment fields, each with three 100,000-gallon double-walled UL-2085 tanks (600,000 gallons total), providing sufficient fuel to sustain approximately 24–72 hours of continuous emergency operation at full design load (204.3 gallons per hour per unit at 100 percent load). Backup generators would primarily operate on renewable diesel when available; ultra-low sulfur diesel (15 ppm sulfur) would be used as an alternative, consistent with applicable EKAPCD permit conditions and air quality analysis assumptions. Fuel deliveries would occur by licensed commercial haulers using the regional highway network, with on-site receipt at designated fill connections within the fuel farm areas. Fuel storage and handling requirements, including Spill Prevention, Control, and Countermeasure (SPCC) Plan preparation and secondary containment design, are addressed in the Hazards and Hazardous Materials section of this Application. Generator emissions controls consist of Johnson Matthey CompactSCRT (DPF/SCR) aftertreatment achieving Tier 4 Final equivalent outlet emissions (NO_x 0.50 g/bhp-hr; 92.6 percent reduction from inlet). This approach complies with NFPA 110 Tentative Interim Amendment TIA 22-1 (effective May 8, 2024), which prohibits EPA-mandated Tier 4 SCR inducement shutdowns for permanent Level 1 applications.

Consistent with Appendix B (h)(4)(B) and (h)(4)(C) disclosure requirements, planning-level estimates of annual fuel consumption and net electrical energy are provided below based on the Conceptual Basis of Design parameters and generator specifications documented in Table AQ-1 of the Air Quality Impact & GHG Analysis (Appendix F.1). Under the routine testing scenario (50 hours per unit per year, tested individually), total annual testing fuel consumption across all 40 units is estimated at approximately 408,600 gallons per year (approximately 5.3×10^{10} BTU per year), producing approximately 6,000 MWh per year. Under the emergency operations scenario, all 40 generators operating simultaneously for approximately 150 hours per year would produce an estimated emergency fuel consumption of approximately 1,225,800 gallons per year (approximately 1.6×10^{11} BTU per year) and approximately 14,400 MWh per year. The combined planning-level annual fuel consumption is estimated at approximately 1,634,400 gallons per year (approximately 2.1×10^{11} BTU per year). Because the emergency generating facility serves on-site loads only and does not export electricity to the grid, this energy production is entirely consumed within the RBIDC campus during outage events and testing activities.

4.18.2 Regulatory Setting

Federal, state, and local laws, ordinances, regulations, and standards applicable to utilities and service systems are summarized below. The Project would be required to comply with all applicable requirements identified in the LORS Compliance Matrix (Appendix N.1).

Federal

Water Supply and Waste Water

Federal Pretreatment Standards (40 CFR Part 403)

The CSD operates a publicly owned treatment works subject to federal pretreatment standards under 40 Code of Federal Regulations Part 403. Industrial users discharging to the publicly owned treatment works must comply with applicable pretreatment standards. Cooling tower blowdown discharge chemistry would be evaluated through a Wastewater Characterization Report submitted to the CSD, and the CSD would determine whether a Significant Industrial User permit is required.

Stormwater Drainage

National Flood Insurance Program / FEMA Floodplain Requirements

The Project site is located within a FEMA-designated Special Flood Hazard Area (SFHA), Zone A, as depicted on the FEMA National Flood Hazard Layer (NFHL) dataset. Applicable federal floodplain requirements would be addressed through final grading, engineering, and any required local implementing approvals or map revisions.

Solid Waste and Hazardous Waste

Resource Conservation and Recovery Act (RCRA)

The Act is the primary federal solid waste law in the U.S. is passed in 1976 as an amendment to the 1965 Solid Waste Disposal Act. It gives the EPA authority to manage hazardous waste ("cradle-to-grave") and regulates non-hazardous municipal solid waste (trash) landfills. Key aspects of RCRA include:

- **Subtitle C (Hazardous Waste):** Establishes a strict system for controlling hazardous waste from generation, transportation, treatment, storage, to disposal.
- **Subtitle D (Non-Hazardous Waste):** Focuses on state-level, comprehensive planning for municipal solid waste (garbage) and non-hazardous industrial waste, setting minimum federal standards for landfills and banning open dumping.
- **Subtitle I (Underground Storage Tanks):** Regulates underground tanks containing petroleum and hazardous substances.
- **Key Amendments:** The 1984 Hazardous and Solid Waste Amendments (HSWA) strengthened waste minimization and phased out hazardous land disposal.
- **Regulatory Framework:** EPA regulations for solid waste are found in 40 CFR 239-259.
- **Common Garbage:** Subtitle D regulates items like household trash, non-hazardous commercial waste, and sludge.

State

Water Supply and Wastewater

State Water Resources Control Board and Regional Water Quality Control Board

The primary responsibility for the protection of water quality in California rests with the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs). The SWRCB sets statewide policy for the implementation of state and federal laws and regulations. The RWQCBs adopt and implement Water Quality Control Plans (Basin Plans), which recognize regional differences in natural water quality, actual and potential beneficial uses, and water quality problems associated with human activities. The Project site is within the jurisdiction of the Lahontan RWQCB.

California Water Code Section 13260

California Water Code Section 13260 requires any person who discharges waste, other than into a community sewer system, or proposes to discharge waste that could affect the quality of waters of the State to submit a report of waste discharge to the applicable RWQCB. Any actions of the Projects that would be applicable under California Water Code Section 13260 would be reported to the Lahontan Region RWQCB.

California Department of Water Resources

The Department of Water Resources (DWR) is a department within the California Resources Agency, and is responsible for the State of California's management and regulation of water usage. These duties include: preventing and responding to floods, droughts, and catastrophic events; informing and educating the public on water issues; developing scientific solutions; restoring habitats; planning for future water needs, climate change impacts, and flood protection; constructing and maintaining facilities; generating power; ensuring public safety; and providing recreational opportunities.

Senate Bills 610 (Chapter 643, Statutes of 2001) and 221 (Chapter 642, Statutes of 2001)

Senate Bill (SB) 610 and SB 221 are companion measures that seek to promote more collaborative planning among local water suppliers and cities and counties. They require that water supply assessment occur early in the land use planning process for all large-scale development Projects. If groundwater is the proposed supply source, the required assessments must include detailed analyses of historic, current, and Projected groundwater pumping and an evaluation of the sufficiency of the groundwater basin to sustain a new Project's demands. They also require an identification of existing water entitlements, rights, and contracts and a quantification of the prior year's water deliveries. In addition, the supply and demand analysis must address water supplies during single and multiple dry years presented in five-year increments for a 20-year Projection. In accordance with these measures, a WSA is required for a proposed industrial, manufacturing, or processing plant that would house more than 1,000 persons; occupy more than 40 acres of land; or have more than 650,000 square feet of floor area (Californian Water Code Section 10912).

Porter-Cologne Water Quality Control Act / Central Valley Regional Water Quality Control Board

Water quality in California is protected under the Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.), implemented through regional water quality control board basin plans. The Project site is within the jurisdiction of the Lahontan Regional Water Quality Control Board (Lahontan RWQCB). The Project would comply with applicable water quality standards and requirements established under the basin plan, including requirements applicable to stormwater discharges, wastewater disposal, and any discharge-related approvals required during construction or operation. Consistency with the applicable basin plan requirements is addressed in the Water Resources section of this Application and in the Water Supply Assessment (Appendix E.3).

California Water Code Section 10910 et seq.

Water supply planning for qualifying Projects is addressed under California Water Code section 10910 et seq. The Water Supply Assessment (Appendix E.3) prepared for the Project provides the detailed water supply analysis supporting this Application.

Sustainable Groundwater Management Act / IWVGA Groundwater Sustainability Plan

The Project's groundwater supply through an onsite wells would draw from the Indian Wells Valley Groundwater Basin, which is subject to the IWVGA Groundwater Sustainability Plan adopted pursuant to the Sustainable Groundwater Management Act. Water supply sufficiency within this framework is evaluated in the Water Supply Assessment (Appendix E.3). The Project would comply with applicable IWVGA requirements and conditions established through the CSD will-serve process.

California Model Water Efficient Landscape Ordinance

Landscape and irrigation design would be required to comply with the California Model Water Efficient Landscape Ordinance, as applicable. Irrigation demand assumptions used in the Project water analysis are based on this water-efficiency framework.

State Water Resources Control Board Construction General Permit

Prior to commencement of ground-disturbing activities, the Project would obtain coverage under the State Water Resources Control Board Construction General Permit (Order No. 2009-0009-DWQ, as amended). The Applicant would prepare and implement a Storm Water Pollution Prevention Plan specifying best management practices to minimize erosion, sedimentation, and pollutant discharge during construction.

Energy

California Energy Commission

The California Energy Commission (CEC) is the state's primary energy policy and planning

agency. Created in 1974, the CEC has five major responsibilities: forecasting future energy needs and keeping historical energy data, licensing thermal power plants 50 megawatts (MW) or larger, promoting energy efficiency through appliance and building standards, developing energy technologies and supporting renewable energy, and planning for and directing the state response to energy emergencies.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies, in addition to authorizing video franchises. In 1911, the CPUC was established by Constitutional Amendment as the Railroad Commission. In 1912, the Legislature passed the Public Utilities Act, expanding the Commission's regulatory authority to include natural gas, electric, telephone, and water companies as well as railroads and marine transportation companies. In 1946, the Commission was renamed the California Public Utilities Commission. It is tasked with ensuring safe, reliable utility service is available to consumers, setting retail energy rates, and protecting against fraud.

Waste

California Department of Resources Recycling and Recovery (CalRecycle) is the state agency designated to oversee, manage, and track California's 76 million tons of waste generated each year. It is one of the six agencies under the umbrella of the California Environmental Protection Agency. CalRecycle administers and provides oversight for all of California's State-managed non-hazardous waste handling and recycling program. CalRecycle provides training and ongoing support for local enforcement agencies that regulate and inspect California's active and closed solid waste landfills.

California Integrated Solid Waste Management Act of 1989 (Public Resources Code 40050, et seq.) or Assembly Bill 939

Pursuant to the California Integrated Solid Waste Management Act of 1989, all cities in California are required to reduce the amount of solid waste disposed in landfills. AB 939 required a reduction of 25 percent by 1995 and 50 percent by 2000. Contracts that include work that will generate solid waste, including C&D debris, have been targeted for participation in source-reduction, reuse, and recycling programs. The contractor is urged to manage solid waste generated by the work to divert waste from disposal in landfills (particularly Class III landfills) and maximize source reduction, reuse, and recycling of C&D debris.

Kern County is responsible for meeting AB 939 requirements. The Act also required cities and counties to prepare solid waste planning documents. These documents include the Source Reduction and Recycling Element (SRRE), the Household Hazardous Waste Element (HHWE), and the Non-disposal Facility Element (NDFE). All three of these documents, as well as the Integrated Waste Management Plan, approved February 1998 by the California Integrated Waste Management Board, have been approved for Kern County. The Kern County Integrated Waste Management Plan is the long-range planning document for landfill facilities.

AB 341 Mandatory Commercial Recycling & SB 1018

Approved on October 6, 2011, AB 341 intended to promote recycling and diversion of solid waste from landfills by requiring businesses to accomplish recycling activities and/or participate in recycling programs. In June 2012, Governor Jerry Brown signed Senate Bill 1018 which included an amendment that requires a business that generates 4 cubic yards or more of commercial solid waste per week to arrange for recycling services.

The Waste Operations Division of the Kern County Public Works Department administers or sponsors the following recycling programs, which contribute toward meeting State-mandated solid waste diversion goals:

- Recycling programs at landfills to recycle or divert a wide variety of products, such as wood waste, cathode ray tubes, tires, inert materials, appliances, etc.;
- Drop-off recycling centers for household recyclables. The County- and the City-operated drop-off recycling centers, which are located in the unincorporated metropolitan area and the city, may be used by both County and city residents;
- Financial assistance for operation of the City of Bakersfield Green Waste Facility;
- The Kern County Special Waste Facility for the disposal of household and small business hazardous waste. Services are provided to all Kern County residents and small businesses;
- Semi-annual “bulky waste” collection events, which are held in the Bakersfield area and available to both County and city residents (co-sponsor);
- Christmas tree recycling campaign (participates jointly with the City of Bakersfield);
- Telephone book recycling program (co-sponsors with Community Clean Sweep);
- Community Clean Sweep summer workshops called “Trash to Treasure,” which educate children about recycling and other Kern County Waste Management Department programs (sponsor);
- An innovative elementary school program called the “Clean Kids Hit the Road Puppet Show” (operates in collaboration with Community Clean Sweep); and
- Recycling trailers for churches, schools, and nonprofit organizations.

The Kern County Public Works Solid Waste Management Advisory Committee (SWMAC) reviews the County’s solid waste management plan every five years to ensure compliance with state regulations. This review, in accordance with CalRecycle guidelines, assesses changes in waste quantity, demographics, and infrastructure, resulting in a Five-Year CIWMP/RAIWMP Review Report submitted to CalRecycle to update or confirm waste management strategies. Title 14 California Code of Regulations Section 18788 requires this review every five years to ensure the County’s Integrated Waste Management Plan (CIWMP) remains current.

In 2015, the County also adopted the Unincorporated Kern County Source Reduction and Recycling Element (SRRE) 2015 Amendment describes the programs, activities and efforts that have successfully achieved and maintained the mandatory waste diversion goals established by AB 939. The SRRE 2015 Amendment also describes the plans and programs to comply with AB 341, Mandatory Commercial Recycling, and AB 1826, Mandatory Commercial Organic

Recycling.

With regard to construction and demolition, the State recommended an expansion of California Green Building Code standards that incentivize green building practices and increase diversion of recoverable construction and demolition materials. Current standards require 75% percent waste diversion on construction and some renovation Projects. The State also recommends promotion of the recovery of construction and demolition materials suitable for reuse, compost or anaerobic digestion before residual wastes are considered for energy recovery.

California Green Building Code

As part of compliance with the State of California Green Building Code Requirements (known as CALGreen) that took effect beginning January 2011, Kern County implements the following construction waste diversion requirements:

- Submittal of a Construction Waste Management Plan prior to Project construction for approval by the Kern County Building Department;
- Recycling and/or reuse of a minimum 65 percent of construction & demolition waste; and
- Recycling or reuse of 100 percent of tree stumps, rocks and associated vegetation and soils resulting from land clearing.

Title 22, California Code of Regulations

Hazardous waste and universal waste characterization, storage, transport, and disposal are governed by applicable provisions of Title 22 of the California Code of Regulations. These requirements would apply to Project-related regulated waste streams, as applicable.

Local

Inyo-Mono Integrated Regional Water Management Plan

An integrated regional water management plan was prepared for the Inyo-Mono Regional Water Management Group (RWMG) which represent watersheds in the eastern Sierra region of California. The plan lists the current water-related Project needs of the region and provides a vision for water planning. Watersheds included in the RWMG planning area include, but are not limited to, the Panamint Valley and Indian Wells Valley.

Indian Wells Valley Water District Urban Water Management Plan

The Indian Wells Valley Water District (IWWVD) prepared its latest Urban Water Management Plan (UWMP) in 2015 pursuant to California Water Code requirements to address the water needs of the area. The UWMP incorporates water system demands, water supplies, and water quality information. The IWWVD coordinates with the City of Ridgecrest, Eastern Kern County Resource Conservation District, Inyokern CSD, Kern Council of Governments, Kern County Planning and Natural Resources Department, Kern County Water Agency, Naval Air Weapons Station (NAWS) China Lake, San Bernardino County Planning, Searles Valley Minerals, United States Bureau of Land Management, Indian Wells Valley Cooperative Groundwater Management Group

(IWVCGMG), and the general public to fulfill the mission, vision, and recommendations of this plan.

Located in Appendix L to the UWMP, the IWVWD also developed a Water Supply Enhancement General Plan, which more specifically addresses the supply needs of the region with the goal of optimizing the use of the existing water supply and evaluating the feasibility of obtaining future supplemental water supplies.

Indian Wells Valley Cooperative Groundwater Management Plan

The Indian Wells Valley Cooperative Groundwater Management Plan (Plan) has been adopted by the IWVCGMG. This Plan, created in 1995 and updated in 2006, was developed as a way for the primary water producers and consumers in the area to jointly manage and evaluate the area's groundwater resources. The Plan includes various provisions to address water management; water conservation; and increasing the life of the aquifer through blending, water importation, and treatment.

Indian Wells Valley Water District Groundwater Sustainability Plan

The Indian Wells Valley is 100 percent dependent on groundwater and has been designated by the California State Department of Water Resources (DWR) as being in a condition of overdraft and of medium priority for groundwater management based on the criteria established by the passage of the Sustainable Groundwater Management Act of 2014 (SGMA). Being in a condition of overdraft was a term developed by DWR to identify basins where “continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts.” Overdraft has serious long-term consequences and as such, in compliance with the SGMA, the associated groundwater sustainability agency (GSA) is required to submit a Groundwater Sustainability Plan (GSP) by January 31, 2020, to achieve local sustainable management of groundwater resources. The Indian Wells Valley Groundwater Authority (IWVGA) Board of Directors adopted Resolution No. 02-16, Joint Exercise of Powers Agreement creating the Indian Wells Valley Groundwater Authority, on December 8, 2016, to establish the IWVGA as the exclusive GSA for the entirety of the IWVGB and undertake the management of groundwater resources pursuant to SGMA. The IWVGA Board established an eleven-person, voting-member Policy Advisory Committee (PAC) to advise the Board on all policy-related matters of the Board and to develop non-binding proposals on policy matters pertaining to the GSP. In addition, the IWVGA Board also established a Technical Advisory Committee (TAC) for the express purpose of giving interested parties a reasonable opportunity to review and conduct a thorough valuation of each technical element of the GSP prior to its finalization by the Water Resources Manager.

In compliance with SGMA, as set forth in California Water Code Section 10720.1, a GSP was developed that discusses Basin management strategies that will culminate in the absence of undesirable and unsustainable Groundwater conditions in the IWVGB. The GSP recommends management actions and Projects and provides measurable sustainability objectives and milestones that are intended to achieve Basin sustainability while considering the unique geologic and hydrogeologic conditions of the IWVGB. The recommendations in the GSP are designed to

provide for long-term sustainable groundwater management in the IWVGB within 20 years of GSP implementation. The GSP was adopted via Resolution 01-20 by the IWVGA Board on January 16, 2020; however, the GSP has been approved by DWR.

Kern County Integrated Waste Management Plan

The Kern County Public Works Department is required by the State to plan and implement waste management activities and programs in the County unincorporated area to assure compliance with AB 939 and subsequent State mandates. The Kern County Integrated Waste Management Plan (IWMP) includes a Reduction and Recycling Element, Household Hazardous Waste Element, and Nondisposal Facility Element. The Plan was approved February 1998 by the California Integrated Waste Management Board (now California Department of Resources Recycling and Recovery or CalRecycle). The Kern County IWMP is the long-range planning document for landfill facilities.

Kern County Construction Waste Diversion Requirements per the California Green Building Code

As part of compliance with the State of California Green Building Code Requirements (known as CALGreen) that took effect beginning January 2011, Kern County implemented the following construction waste diversion requirements:

- Submittal of a Construction Waste Management Plan prior to Project construction for approval by the Kern County Building Department;
- Recycling and/or reuse of a minimum 65 percent of construction & demolition waste; and
- Recycling or reuse of 100 percent of tree stumps, rocks and associated vegetation and soils resulting from land clearing (Kern County, 2018).

Kern County General Plan

The policies, goals, and implementation measures in the Kern County General Plan for utilities and service systems applicable to the Project are provided below. The Kern County General Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the Project. Therefore, they are not listed below, but all policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Public Facilities and Services (1.4)

Goal 1: Kern County residents and businesses should receive adequate and cost effective public services and facilities. The County will compare new urban development proposals and land use changes to the required public services and facilities needed for the proposed Project.

Goal 5: Ensure that adequate supplies of quality (appropriate for intended use) water are

available to residential, industrial, and agricultural users within Kern County.

- Policy 1: New discretionary development will be required to pay its proportional share of the local costs of infrastructure improvements required to service such development.
- Policy 3: Individual Projects will provide availability of public utility service as per approved guidelines of the serving utility.
- Policy 15: Prior to approval of any discretionary permit, the County shall make the finding, based on information provided by the CEQA documents, staff analysis, and the applicant, that adequate public or private services and resources are available to serve the proposed development.
- Policy 16: The developer shall assume full responsibility for costs incurred in service extension or improvements that are required to ensure the Project. Cost sharing or other forms of recovery shall be available when the service extensions or improvements have a specific quantifiable regional significance.
- Measure C: Project developers shall coordinate with the local utility service providers to supply adequate public utility services.
- Measure D: Involve utility providers in the land use and zoning review process.

Resources (1.9)

Goals

- Goal 4: Encourage safe and orderly energy development within the County, including research and demonstration Projects, and to become actively involved in the decision and actions of other agencies as they affect energy development in Kern County.
- Goal 6: Encourage alternative sources of energy, such as solar and wind energy, while protecting the environment.
- Policy 1: Appropriate resource uses of all types will be encouraged as desirable and consistent interim uses in undeveloped portions of the County regardless of General Plan designation.

General Provisions (1.10); Public Services and Facilities (1.10.1)

- Policy 9: New development should pay its pro rata share of the local cost of expansions in services, facilities, and infrastructure which it generates and upon which it is dependent.
- Policy 15: Prior to approval of any discretionary permit, the County shall make the finding, based on information provided by the California Environmental Quality Act

(CEQA) documents, staff analysis, and the applicant, that adequate public or private services and resources are available to serve the proposed development.

- Policy 16: The developer shall assume full responsibility for costs incurred in service extension or improvements that are required to serve the Project. Cost sharing or other forms of recovery shall be available when the service extensions or improvements have a specific quantifiable regional significance.
- Measure C: Project developers shall coordinate with the local utility service providers to supply adequate public utility services.
- Measure D: Involve utility providers in the land use and zoning review process.
- Measure E: All new discretionary development Projects shall be subject to the Standards for Sewage, Water Supply and Preservation of Environmental Health Rules and Regulations administered by the County's Public Health Services Department. Those Projects having percolation rates of less than five minutes per inch shall provide a preliminary soils study and site specific documentation that characterize the quality of upper groundwater in the alternative septic systems would adversely impact groundwater quality. If the evaluation indicated that the uppermost groundwater at the proposed site already exceeds groundwater quality objectives of the Regional Water Quality Control Board or would if the alternative septic system is installed, the applicant would be required to supply sewage collection, treatment, and disposal facilities.

Energy Element (Chapter 5)

- Goal 1: Encourage safe and orderly commercial solar development.
- Policy 1: The County shall encourage domestic and commercial solar energy uses to conserve fossil fuels and improve air quality.
- Policy 3: The County should permit solar energy development in the desert and valley planning regions that does not pose significant environmental or public health and safety hazards.
- Policy 4: The County shall encourage solar development in the desert and valley regions previously disturbed, and discourage the development of energy Projects on undisturbed land supporting state or federally protected plant and wildlife species.

Inyokern Specific Plan

The Land Use, Open Space, and Conservation Element of the Inyokern Specific Plan has the purpose of identifying physical constraints, public, residential, commercial, and industrial facilities as well as cultural and biological resources within the Plan area. The Land Use, Open Space, and Conservation Element has been adopted as part of the Kern County General Plan. This element of the Inyokern Specific Plan is to supplement the Countywide document.

Land Use, Open Space, and Conservation Element; Public Facilities

- Goal 1: To provide adequate public services and facilities to meet Projected community needs.
- Policy 1: All new development shall be required to pay its proportional share of the costs of local infrastructure improvements, such as streets, sewers, water lines, and park development.
- Policy 4: New industrial and commercial development shall be required to connect to the Inyokern Community Services District service systems, or shall provide sewage disposal in accordance with requirements of the California Regional Water Quality Control Board, Lahontan District, and the Kern County Environmental Health Services Department. Should new development occur outside the community services district boundaries, but inside the Specific Plan boundaries, annexation to the community services district shall be required unless the development otherwise meets the requirements of the Lahontan District and the Kern County Environmental Health Services Department.
- Measure 4: Plans for adequate water and sewer systems for development Projects shall be completed and approved in coordination with the Inyokern CSD, the Kern County Environmental Health Services Department and Kern County Fire Department prior to occupancy.

Industrial Element

- Policy 2: Industrial development must demonstrate the ability to provide adequate water, sewer and other public services.
- Measure 3: Utility service to all new development shall be located underground.
- Measure 4: All new industrial subdivisions and, where applicable, PD (Precise Development) plans shall include provisions for standard street access, alleys where necessary, and sewer and water connections to the Inyokern CSD.

All policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

Kern County Drainage Standards / Kern County Flood Control and Water Conservation District

Stormwater drainage facilities are subject to applicable Kern County drainage standards and Kern County Flood Control and Water Conservation District design criteria. The Project's stormwater

management design would be required to comply with County drainage requirements prior to construction.

Inyokern Community Services District Rules and Standards

The CSD's will-serve letter establishes the current provider basis for water and wastewater service and identifies conditions that would apply to final service, including verification of demand estimates, final engineering review, water supply and storage considerations, hydraulic evaluation of sewer service, and wastewater characterization for pretreatment review.

Local Agency Formation Commission (LAFCo) / Service Area Considerations

To the extent required for service extension or service area implementation, the Project would comply with applicable Local Agency Formation Commission procedures associated with service provision by the Inyokern CSD.

Local Solid Waste Collection and Disposal Arrangements

Project solid waste collection and disposal would occur through authorized local or franchise service arrangements, as applicable, consistent with county and local requirements.

4.18.3 Impacts and Mitigation Measures

Methodology

The analysis in this section evaluates: (1) existing utility and service system conditions in the Project vicinity; (2) whether existing provider capacity and infrastructure can serve the Project's anticipated demands; and (3) whether new or expanded facilities, measures, or commitments would be required to serve the Project. Significance is evaluated consistent with the criteria established in the CEQA Guidelines Appendix G checklist for Utilities and Service Systems.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in *CEQA Guidelines* Appendix G, to determine if a Project could potentially have a significant adverse effect on utilities and service systems. A Project could have a significant adverse effect on utilities and service systems if it would:

- (a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- (b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years;

- (c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments;
- (d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- (e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

Project Impacts

Impact 4.18-1: Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Water Facilities. The Inyokern CSD has contracted and/or developed water supplies sufficient to serve the Project's Projected demands within the District's planning horizon, subject to the conditions and conservation requirements stated herein. A water main extension is anticipated to provide adequate fire flow and domestic pressure to the Project site. All extensions shall be designed and constructed at Applicant's sole cost per the Inyokern CSD standards. If the District requests oversizing beyond Project need, the parties shall execute a reimbursement agreement as described in Section 5.6 of the District's executed Will-Serve Letter (April 2, 2026).

Wastewater treatment. The Inyokern CSD preliminarily found existing trunk sewer facilities are to have sufficient capacity; however, upsizing of the lateral connection may be required based on final hydraulic modeling.

Stormwater drainage. The Inyokern CSD preliminarily found sufficient onsite stormwater management capacity. Stormwater runoff would be retained onsite through site grading and a retention basin on the west side of the site compliant with Kern County Public Works requirements. The retention basin is sized at approximately 2.2 acre-feet consistent with the 10-year, five-day design storm and applicable Kern County Flood Control and Water Conservation District drainage criteria. Final stormwater design, including retention sizing, freeboard, overflow features, and construction sequencing, would be established during final engineering and County review prior to issuance of grading permits.

Electric power. As discussed in the *Environmental Setting* element of this section, electric service for the Project would be provided by SCE through an SCE owned and operated 115 kV customer-dedicated ring bus substation interconnecting with SCE's existing Inyokern 115 kV Substation via two (2) 115 kV overhead subtransmission lines with associated fiber-optic communication cables located within two separate transmission line corridors per SCE MOS174 (March 30, 2026) and Section 2 of this Application. Route 1 of these corridors will be approximately 8,000 linear feet and Route 2, approximately 4,000 linear feet. SCE operating specification, per MOS174, provides 2N utility redundancy to the Project.

The SCE owned customer dedicated substation 115 kV bus will connect to the Project owned 115 kV substation bus via a single short over-the-fence 115 kV tie line. The Project's main 34.6 kV bus will be served through two Project owned 115/34.6 kV 60/80/100 MVA step-down transformers from the Project Substation 115 kV ring bus.

On March 30, 2026, SCE issued a Method of Service Study ("MOS Study") to analyze the Project's impact on SCE system and to provide technical requirements, estimated costs, and schedule for the installation of the new 115 kV SCE customer dedicated substation. The SCE Transmission Planning group evaluated the Customer load interconnection request for 99 MW. The potential plan of service covered the requirements for:

- The Inyokern 115 kV Substation as POI,
- The 115 kV SCE transmission system serving the Inyokern 115 kV Substation,
- The one 115 kV customer dedicated ring bus substation, and
- The two (2) 115 kV subtransmission lines with associated fiber-optic communication cables between the Inyokern 115 kV Substation and the one 115 kV customer dedicated substation.

Per MOS Study, the Project will own and operate its own transformer and feeders and will be responsible to complete necessary environmental licensing starting from the SCE owned customer dedicated substation.

Based on the power flow analysis, no adverse system impacts or required system upgrades on the SCE 115 kV transmission system serving the Inyokern 115 kV Substation were identified under contingency (P1-P7) conditions. The analysis included Transmission Planning Process approved upgrades modeled in the base case for all study years.

The MOS Study notes that future modifications to system topology, Project configuration, or customer load characteristics may necessitate a restudy to confirm continued system adequacy.

MOS Study notes that if the requested in-service date requested by the Applicant is deemed unfeasible the SCE Project execution team will make commercially reasonable efforts to expedite the estimated in-service date.

Finally, MOS Study notes that the interconnection design and service requirements would be confirmed through SCE's Method of Service process and applicable utility review procedures. Electrical interconnection documentation, including the Project one-line, point of interconnection location, and substation one-line, is provided in the Appendix L series.

The SCE Method of Service Study ("MOS Study") and Applicant's request for the MOS Study and related correspondence are submitted to the CEC as confidential information.

Natural Gas. Natural gas service is provided regionally by Pacific Gas & Electric Company (PG&E). Natural gas service feasibility has been evaluated at a screening level by PG&E which indicated that the Project can be served from a nearby transmission main and that the requested load is feasible. Although natural gas service is available and was evaluated, it was not selected as

the primary redundancy approach for the Project. Any limited natural gas service needs would be finalized during utility engineering and provider review. Any limited natural gas service needs would be finalized during utility engineering and provider review; noting, however, that due to earthquake risk the Applicant does not intend to rely on natural gas for IT-critical systems.

Telecommunications. Fiber service will be provided by Onward via a redundant, carrier-diverse network with independent north and south routes and direct access to the Digital 395 fiber. The system includes 432 strands in three underground conduits, scalable from 1–100 Gbps, with ~6 ms RTT to Los Angeles. The fiber tie-in location is onsite, providing direct integration with the facility’s network architecture. Based on currently available information, telecommunications service would be provided through an on-site connection and the current record does not indicate the need for major offsite telecommunications expansion beyond normal connection facilities.

Construction. During construction, the Project would require installation of onsite utility infrastructure including water and wastewater connections to CSD infrastructure, onsite distribution, stormwater retention facilities, electrical interconnection facilities, and telecommunications conduit. The CSD’s will-serve letter indicates that a water main extension may be necessary and that sewer lateral upsizing may be required depending on final hydraulic modeling. Construction of these improvements could result in temporary physical disturbances associated with trenching, grading, pipeline installation, and related activity. However, these improvements are localized connection and service facilities that are part of Project development and do not require major new regional utility or service system expansion.

Wastewater produced during construction would be collected in portable toilet facilities and disposed of at an approved facility.

Operation

During operation, the Project would connect to existing utility systems through the localized extensions identified above. Electric service would be finalized through SCE’s Method of Service process. Natural gas service would be finalized during PG&E engineering. Telecommunications service would be provided through an onsite connection to the proposed redundant network. Stormwater runoff would be managed onsite through a retention basin designed to meet Kern County requirements. Because the utility and service system improvements required to serve the Project would not, in themselves, result in significant environmental effects beyond those evaluated elsewhere in this Application, the operational impact would be less than significant.

Mitigation Measures

MM 4.18-1 Water Supply: A water main extension is anticipated to provide adequate fire flow and domestic pressure to the Project site. All extensions shall be designed and constructed at Applicant's sole cost per the Inyokern CSD standards. If the District requests oversizing beyond Project need, the parties shall execute a reimbursement agreement as described in Section 5.6 of the District’s executed Will-Serve Letter (April 2, 2026).

MM 4.18-2 Electrical Service — SCE MOS Compliance. Prior to issuance of building permits, the Applicant shall execute an engineering and construction agreement with Southern California Edison (SCE) for the 115 kV customer-dedicated substation and associated subtransmission facilities consistent with SCE Method of Service Study MOS174 (March 30, 2026). The Applicant shall ensure compliance with SCE's Voltage Fluctuation Criteria as described in Section D of the MOS Study and shall submit to CEC Staff a copy of the executed SCE service agreement. Any future modifications to system topology, Project configuration, or customer load characteristics that would require a new MOS study shall be reported to the Kern County Planning and Natural Resources Department prior to implementation.

- a. Although flicker analysis was not performed due to insufficient data, the customer must ensure compliance with SCE's Voltage Fluctuation Criteria as described in Section D of the MOS Study.
- b. Final interconnection design and service requirements would be confirmed through SCE's Method of Service process and applicable utility review procedures. Electrical interconnection documentation, including the Project one-line, point of interconnection location, and substation one-line, is provided in the Appendix L series.

MM 4.18-3 Natural Gas Service — PG&E Coordination. Prior to commencement of construction, the Applicant shall finalize all natural gas service requirements with Pacific Gas & Electric Company (PG&E) through final utility engineering and provider review. If natural gas service connections are determined necessary, the Applicant shall obtain all required PG&E service agreements and permits prior to construction of any natural gas infrastructure and shall provide written confirmation of service arrangements to the Kern County Planning and Natural Resources Department.

Mitigation Measures: Implementation of MM 4.18-1 through MM 4.18-3 would be required.

Level of Significance: With the implementation of the stated mitigation measures, impacts would be less than significant.

Impact 4.18-2: Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Under SB 610, a Water Supply Assessment (WSA) is required to determine water supply sufficiency for a 20-year Projection in addition to the demand of existing and other planned future uses. They are required for any Project that is subject to the California Environmental Quality Act (CEQA) and proposes (1) residential development of more than 500 dwelling units; (2) commercial development of more than 250,000 square feet of floor space; (3) a retail center with more than 500,000 square feet of floor space; (4) a hotel or motel having more than 500 rooms; (5) an industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of

floor area; (6) a mixed-use Project that includes one or more of the Projects specified above; or (7) a Project that will demand an amount of water equal to, or greater than, the amount of water required by 500 dwelling units.

Similarly, the California Water Code Section 10910 et seq. requires water supply planning for qualifying Projects is addressed under California Water Code section 10910 et seq. Water Code Section 10910, Section 4.5(c)(3) state that if the Projected water demand associated with the proposed Project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the Project shall include a discussion with regard to whether the public water system's total Projected water supplies available during normal, single dry, and multiple-dry water years during a 20-year Projection will meet the Projected water demand associated with the proposed Project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

As discussed in the *Environmental Setting* element of this section, the Project site is located within the service area of and will be supplied by the Inyokern Community Service District. To meet Tier III requirements for data centers, the Project will also have access to an on-site private well and water storage tanks for emergency fire suppression and redundancy. The Inyokern Community Services District (CSD) in California does not provide water to more than 3,000 people and thus, according to California Water Boards classification, the district is classified as a small community public water system which serves approximately 782 residents through approximately 265 service connections. The CSD is a small community public water system and the Project is subject to the Water Supply Assessment required of SB 610 and to California Water Code Section 10910 et seq.

The WSA (Appendix E.3) prepared for the Project evaluated the sufficiency of the Project water supply is analyzed on three bases: the physical availability of the Project Area aquifer, and wells drilled therein, to provide groundwater in the amounts required for Project construction and operation; the estimates (in the 2020 GSP and 2025 Periodic Evaluation) of normal water years, single-dry water years, and multiple dry water years, water supply and demand-related water availability; the availability of groundwater for the Project in compliance with SB 610. As presented in the WSA:

Based on the 2020 IWVGA GSP future water budget approximately 26,511 acre-feet per year are expected to be extracted in 2040 in respect to physical availability of groundwater at and near the Project site.

Note the following conclusion from the WSA: This [The] WSA has provided the data and analysis needed to verify that a sufficient Project water supply is physically available (Section 3.1) and that the Project water supply is in accord with SB 610's normal year/dry-year/multiple-dry year requirements, sufficient (Section 3.2). The maximum water demand for this Project is estimated at 49.10 acre-feet/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. This conclusion is based on the fact that maximum water demand for this Project is estimated at 49.10 acre-feet (16 MG)/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. Compliance with the DWR Guidelines for the Project

is included in Appendix C [of the WSA]. It is recommended that the County of Kern conclude that the proposed water supplies for the Project are sufficient to meet the projected Project water demand.

Construction Phase: Construction water needs were estimated based on the construction schedule, equipment usage and personnel quantities is approximately 9–11 million gallons over an approximate two year period (5.5 MGY or 16.9 AFY).

Operation and Maintenance Phase: During operation and maintenance of the proposed Project, it is anticipated that water would be required primarily for direct liquid cooling of IT racks and air cooling of the data halls. A smaller portion would be required for domestic office and irrigation purposes. The Project will be served by a domestic water supply, with on-site storage tanks and a site well maintained as redundant measures to meet Tier III reliability requirements. Estimated annual water demands range from 30.68 to 33.75 acre-feet per year (AFY) (approximately 10–11 million gallons per year (MGY) for cooling and 3.06 to 6.13 acre-feet per year (approximately 1–2 MGY) for domestic use. Closed-loop mechanical make up, pre-action sprinkler testing/refill and humidification will add an additional water demand of 3.06 to 9.20 acre-feet per year (approximately 1-3 MGY). Irrigation will meet at least a 20% reduction below MAWA (Maximum Allowed Water Allowance). The total estimated annual water usage for the entire site is estimated to be between 36.83 to 49.10 acre-feet per year (12-16 MGY).

The Project's maximum estimated water demand of 49.10 AFY represents approximately 0.185% of the projected 2040 basin extraction of 26,511 AFY. The Inyokern CSD has issued a Will Serve Letter confirming it has sufficient water allocation and infrastructure capacity to serve the Project without requiring new or expanded entitlements. Therefore, from a utility service perspective, sufficient water supplies are available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. The impact on utility water supply capacity is less than significant.

The water supplied by the CSD is drawn from the Indian Wells Valley Groundwater Basin, which is designated as critically overdrafted under SGMA and is governed by the Indian Wells Valley Groundwater Authority's Groundwater Sustainability Plan. As detailed in Section 4.10 (*Hydrology and Water Quality*), with implementation of Mitigation Measures MM 4.10-2 and MM 4.10-3 the Project's water usage would operate within the GSP's adaptive management framework and would not conflict with or obstruct sustainable yield achievement.

As concluded in the WSA: This [The] WSA has provided the data and analysis needed to verify that a sufficient Project water supply is physically available (Section 3.1) and that the Project water supply is in accord with SB 610's normal year/dry-year/multiple-dry year requirements, sufficient (Section 3.2). The maximum water demand for this Project is estimated at 49.10 acre-feet/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. This conclusion is based on the fact that maximum water demand for this Project is estimated at 49.10 acre-feet (16 MG)/year or 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. Compliance with the DWR Guidelines for the Project is included in

Appendix C [of the WSA]. It is recommended that the County of Kern conclude that the proposed water supplies for the Project are sufficient to meet the projected Project water demand.

The Project's contribution to basin-wide groundwater conditions would therefore be less than significant with mitigation.

Mitigation Measures: As stated in Section 4.10, *Hydrology and Water Quality*, the following mitigation measures would be required:

MM 4.10-2: The proposed Project proponent/operator would be required to comply with all applicable restrictions on groundwater use as applicable to the Indian Wells Valley Groundwater Authority's Groundwater Sustainability Plan for the Indian Wells Valley Groundwater Basin. During construction, operation, and decommissioning, the Project shall implement water conservation measures to the maximum extent possible.

MM 4.10-3: Prior to the issuance of a grading or building permit, written documentation shall be submitted to the Kern County Planning and Natural Resources Department that the Project proponent has verified the water source for Project construction and operation by one of the following methods:

- (a) A will-serve letter from the Inyokern Community Services District dated within 60 days of application for the grading or building permit; or
- (b) A letter from the Indian Wells Valley Groundwater Authority dated within 60 days of application for the grading or building permit acknowledging that a new well drilled and developed within the Project boundaries, which is permitted by Kern County Public Health, can pump groundwater and state the amount of groundwater pumping allowed per year; or
- (c) A letter from a water provider outside of the Basin, showing the source and amount of water and method of delivery to the Site.

Mitigation Measures: Implementation of Mitigation Measures MM 4.18-1 through MM 4.18-8 along with MM 4.10-2 and MM 4.10-3 (see Section 4.10) and would be required.

Level of Significance after Mitigation: With implementation of the stated mitigation measures, impacts would be less than significant.

Impact 4.18-3: Would the Project result in a determination by the wastewater treatment provider that it does not have adequate capacity to serve the Project's Projected demand?

As discussed in the *Environmental Setting* element above, on April 2, 2026 the Inyokern Community Services District (the "District" as referenced in this sub-section) issued an executed Will-Serve Letter (April 2, 2026) regarding water and sewer service to the Project (attached as Appendix M.3), based on the information below and contingent upon compliance with all applicable California Energy Commission (CEC), Kern County, Indian Wells Valley Groundwater

Authority, District, and other applicable regulatory agency rules, regulations, capacity fees, connection requirements, and environmental review obligations as further described below.

The District's executed Will-Serve Letter (April 2, 2026) is based on the following estimated wastewater flow assumptions:

- **Average Dry Weather Flow (ADWF):** Approx. 6,640 GPD
- **Peak Wet Weather Flow (PWWF):** Approx. 2.5 x ADWF for pipeline sizing.
- **Prime Discharge Source:** Sanitary/ domestic (restrooms, break rooms, locker facilities.
- **Secondary Discharge Source:** Cooling tower blowdown (requires pretreatment evaluation)
- **HVAC Condensate:** Volume TBD at final engineering. The letter assumes primary routing of all sanitary wastewater to the District's collection system. If Applicant proposes to route any portion of the wastewater stream to an on-site industrial septic or other alternative disposal system, Applicant shall notify the District in writing and obtain District concurrence prior to permitting. The executed Will-Serve Letter (April 2, 2026) does not authorize partial service or split-routing arrangements without a separate written amendment.
- **Industrial Pretreatment:** The District operates a publicly owned treatment works (POTW) subject to the pretreatment standards established under 40 C.F.R. Part 403 and state law. Cooling tower blowdown may contain concentrations of conductivity, total dissolved solids, corrosion inhibitors, and biocides that require evaluation. Applicant shall submit a Wastewater Characterization Report to the District no later than 120 days prior to issuance of the first building permit for the Project.

Within 45 days of receipt of a complete report, the District will provide interim numeric acceptance criteria (e.g., conductivity/TDS, phosphate/phosphonate, molybdate, biocide residuals, and any applicable metals) sufficient to support basis-of-design and permitting. The District will determine whether a Significant Industrial User (SIU) permit is required. Battery energy storage systems (BESS) present on site shall be assessed for potential fluoride, lithium, and PFAS contributions to the waste stream. If the Applicant's blowdown meets the District's interim criteria and any SIU permit conditions, no additional pretreatment beyond the specified controls will be required.

Construction Phase: Construction activities would not generate significant wastewater flows requiring treatment by the CSD. Portable sanitation facilities would be used during construction. No impact to CSD wastewater treatment capacity is anticipated during construction.

Operation and Maintenance Phase: The CSD's will-serve letter identifies preliminary wastewater flow estimates (approximately 6,670 GPD ADWF) and states that available treatment capacity exists to serve the Project, subject to identified conditions. Final hydraulic modeling may

determine that sewer lateral upsizing is necessary. Cooling tower blowdown would be subject to wastewater characterization and pretreatment review, including a determination as to whether a Significant Industrial User permit would be required. Because the wastewater provider has preliminarily determined that treatment capacity is available, and because any required conveyance, characterization, or pretreatment measures would be established through final engineering and utility permitting, the Project would not result in a determination that inadequate wastewater treatment capacity is available and thus the Project's impact on waste water would be less than significant.

Mitigation Measures

MM 4.18-4 Secondary Discharge Source: The Cooling tower blowdown requires pretreatment evaluation by the Inyokern CSD.

MM 4.18-5 HVAC Condensate: Volumes shall be determined at final engineering:

- (a) If Applicant proposes to route any portion of the wastewater stream to an on-site industrial septic or other alternative disposal system, Applicant shall notify the District in writing and obtain District concurrence prior to permitting. The executed Will-Serve Letter (April 2, 2026) does not authorize partial service or split-routing arrangements without a separate written amendment.
- (b) Applicant shall submit a Wastewater Characterization Report to the District no later than 120 days prior to issuance of the first building permit for the Project.

Within 45 days of receipt of a complete report, the District will provide interim numeric acceptance criteria (e.g., conductivity/TDS, phosphate/phosphonate, molybdate, biocide residuals, and any applicable metals) sufficient to support basis-of-design and permitting. The District will determine whether a Significant Industrial User (SIU) permit is required. Battery energy storage systems (BESS) present on site shall be assessed for potential fluoride, lithium, and PFAS contributions to the waste stream. If the Applicant's blowdown meets the District's interim criteria and any SIU permit conditions, no additional pretreatment beyond the specified controls will be required.

Mitigation Measures: Implementation of MM 4.18-4 and MM 4.18-5 would be required.

Level of Significance after Mitigation: With implementation of the stated mitigation measures, impacts would be less than significant.

Impact 4.18-4: Would the Project generate solid waste in excess of state or local standards, or otherwise impair attainment of solid waste reduction goals?

A minimal amount of non-hazardous solid waste generated at the Project site would most likely be disposed of by a permitted hauler at the Ridgecrest Recycling and Sanitary Landfill (RSLF) located at 3301 Bowman Road in the City of Ridgecrest, approximately 5 miles southeast of the Project site. This Class III landfill accepts clean inerts (e.g., source separated asphalt, brick and

concrete; C&D waste, including asphalt, brick, concrete, dirt, and metal); dead animals; electronic waste for recycling; greenwaste; ordinary household trash; tires; and treated wood waste (e.g., grape stakes, utility poles; foundation lumber); and used motor oil. The landfill does not accept hazardous waste, hot ashes, and liquids of any kind.

According to CalRecycle, as of the end of 2023, RSLF had approximately 102,300,000 cubic yards capacity remaining of a total of 117,400,000 cubic yard maximum capacity. The ceased operation date of the RSLF is January 1, 2080.

Other nearby landfills in the Project vicinity are the Boron Sanitary Landfill, a Class III landfill which is approximately 47 miles south of the Project site at 11400 Boron Avenue in Boron, and the Mojave-Rosamond Recycling and Sanitary Landfill, which is located at 400 Silver Queen Road in Mojave, approximately 48 miles southwest of the Project site. Landfill locations, capacity, and anticipated closure dates are presented Table 4.18-2, Summary of Kern County Public Works Landfills of the *Environmental Setting* discussion.

Construction Phase: Construction waste would consist primarily of packaging, scrap materials, concrete, steel, and other debris associated with site development and building construction. These materials would be characterized, collected, recycled, and disposed of through authorized service providers in accordance with applicable state and local requirements, including the California Integrated Waste Management Act.

Operation and Maintenance Phase: During operation, the Project would generate municipal solid waste, recyclable materials, periodic maintenance-related waste streams, and Project-related regulated waste streams managed under applicable waste handling requirements. The Project would not generate unusually large or atypical solid waste streams that would exceed applicable standards or substantially impair attainment of state or local waste reduction goals. Detailed discussion of waste characterization and management practices is provided in the Waste Management section of this Application.

Decommissioning Phase: Demolition and construction waste would consist primarily of packaging, scrap materials, concrete, steel, and other debris associated with site development and building construction. These materials would be characterized, collected, recycled, and disposed of through authorized service providers in accordance with applicable state and local requirements, including the California Integrated Waste Management Act.

In respect to the proposed 1 MW solar PV panels for the rooftop and carport PV systems, the PV panels have a lifespan of over 30 years, after which the land could be converted to other uses in accordance with applicable land use regulations in effect at that time. Solar PV panels contain valuable materials that would likely be recycled at the end of their useful life. Solar panel manufacturers have identified that approximately ninety percent of materials in solar panel modules can be recycled, where feasible. In the case of both crystalline silicon and thin film CdTe PV technology, a national PV module recycling network has been established by the U.S. Solar Energy Industry Association (SEIA) for providing module collection and recycling services (see <https://www.seia.org/initiatives/seia-national-pv-recyclingprogram>). Decommissioning of the collection lines would not generate substantial amounts of solid waste.

As stated above, the Ridgecrest Recycling and Sanitary Landfill , Boron Sanitary Landfill and the Mojave-Rosamond Recycling and Sanitary Landfill are expected to be in operation through 2050, 2048 and 2123, respectively, and are anticipated to serve as possible solid waste disposal locations during Project decommissioning. Per Mitigation Measure MM 4.18-6, a collection and recycling program would be implemented during decommissioning to recycle Project components and minimize disposal of Project components in landfills. Following decommissioning, the Project site would be returned to predevelopment conditions or converted to other uses in accordance with applicable land use regulations in effect at the time, and would not generate waste. Therefore, impacts related to landfill capacity would be less than significant during decommissioning with the implementation of Mitigation Measure MM 4.18-6 and 4.18-7.

Moreover, the Project shall comply with with the State of California Green Building Code Requirements (CALGreen) with respect to the construction waste diversion requirements.

Mitigation Measures

MM 4.18-6 During construction, operation, and decommissioning, debris and waste generated shall be recycled to the extent feasible. The provisions listed below shall apply to the Project.

- a. An onsite Recycling Coordinator shall be designated by the Project proponent/operator to facilitate recycling as part of the Maintenance and Decommissioning, Trash Abatement and Pest Management Program.
- b. The Recycling Coordinator shall facilitate recycling of all construction waste through coordination with contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes.
- c. The onsite Recycling Coordinator shall also be responsible for ensuring wastes requiring special disposal are handled according to State and County regulations that are in effect at the time of disposal
- d. Contact information of the coordinator shall be provided to the Kern County Planning and Natural Resources Department prior to issuance of building permits.
- e. The Project proponent/operator shall provide a storage area for recyclable materials within the fenced Project area that is clearly identified for recycling. This area shall be maintained on the site during construction, operations and decommissioning. A site plan showing the recycling storage area shall be submitted prior to the issuance of any grading or building permit for the site.

MM 4.18-7 During construction, operation, and decommissioning, debris and waste generated shall be handled pursuant to the CALGreen standards. The provisions listed below shall apply to the Project.

- a. Submittal of a Construction Waste Management Plan prior to Project construction for approval by the Kern County Building Department;
- b. Recycling and/or reuse of a minimum 65 percent of construction & demolition waste; and
- c. Recycling or reuse of 100 percent of tree stumps, rocks and associated vegetation and soils resulting from land clearing.

Mitigation Measures: Implementation of MM 4.18-6 and MM 4.18-7 would be required.

Level of Significance after Mitigation: With implementation of Mitigation Measure MM 4.18-6 and 4.18-7, impacts would be less than significant.

Impact 4.18-5: Would the Project not comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The Project would generate solid waste during construction, operation, and decommissioning. Common construction waste may include metals, masonry, plastic pipe, rocks, dirt, cardboard, or green waste related to land development.

AB 341 requires Kern County to attain a waste diversion goals of 75 percent by 2020 through reduction, recycling, or composting. In addition, as part of compliance with CALGreen requirements, Kern County implements the following construction waste diversion requirements:

- Submittal of a Construction Waste Management Plan;
- Recycle and/or reuse a minimum 65 percent C&D waste; and
- Recycle or reuse 100 percent of tree stumps, rocks, and associated vegetation and soils resulting from land clearing.

Additionally, the California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires expanded or new development Projects to incorporate storage areas for recycling bins into the Project design. Implementation of Mitigation Measures MM 4.18-6 and MM 4.18-7 would ensure compliance with waste diversion and recycling requirements by requiring recycling during construction, operation, and decommissioning of the Project.

The proposed Project would be required to comply with all federal, State, and local statutes and regulations related to the handling and disposal of solid waste.

Therefore, implementation of the Project would result in less than significant impacts regarding compliance with management and reduction statutes and regulations related to solid waste.

Subtransmission line

Similar to the data center facility, the proposed subtransmission line would be required to comply with all federal, State, and local statutes and regulations related to the handling and disposal of solid waste. Therefore, the proposed subtransmission line would result in less than significant

impacts regarding compliance with management and reduction statutes and regulations related to solid waste. Construction of the subtransmission line is expected to generate minimal amounts of waste.

Non-hazardous construction waste would be recycled or disposed of at a local landfill; any hazardous waste generated would be disposed of at an approved location. Operation of the subtransmission line would not require full-time personnel or cleaning and would therefore not generate solid waste during operation.

During decommissioning, a collection and recycling program would be implemented to recycle Project components and minimize disposal of Project components in landfills. All decommissioning and restoration activities would adhere to the requirements of the appropriate governing authorities, in accordance with all applicable federal, State, and local regulations.

Similar to the data center facility, the proposed subtransmission line would be required to comply with all federal, State, and local statutes and regulations related to the handling and disposal of solid waste. Therefore, the subtransmission line would result in less than significant impacts regarding compliance with management and reduction statutes and regulations related to solid waste. This impact evaluates whether the Project would conflict with applicable solid waste management and reduction requirements.

Mitigation Measures: Implementation of MM 4.18-6 and 4.18-7 would be required.

Level of Significance after Mitigation: With implementation of Mitigation Measure MM 4.18-6 and 4.18-7, impacts would be less than significant.

4.18.4 CEC SPPE Appendix B Compliance

Table 4.18.4-A CEC SPPE Appendix B Compliance Cross-Reference

Ref.	Appendix B Requirement	Section / Table	Status
Setting Requirements — Environmental Setting and Existing Conditions			
(g)(14)(C)(i)	Sources of primary and backup water supplies; rationale for selection	§4.18.1; Table 4.18-1	✓ Deferred — supplement at final engineering
(g)(14)(C)(ii)	Physical/chemical characterization of source and discharge water; seasonal variation	§4.18.1 (gap acknowledged; commitment to provide at final engineering)	✓ Deferred — supplement at final engineering

Ref.	Appendix B Requirement	Section / Table	Status
(g)(14)(C)(iii)	Average/maximum daily and annual water demand — construction and operation	§4.18.1; Table 4.18-1	✓ Addressed
(g)(14)(C)(iv)	Detailed facility description; water mass balance diagram	§4.18.1 (parameters documented; diagrams committed at final engineering)	✓ Deferred — supplement at final engineering
(g)(14)(C)(v)	Will-serve letter confirming adequate supply for Project life	§4.18.1 (Appendix — CSD will-serve letter dated April 2, 2026)	✓ Addressed
(g)(14)(C)(vii)	Water mass balance and heat balance diagrams — average and maximum flow conditions	§4.18.1 (committed at final engineering)	✓ Addressed
(g)(14)(C)(viii)	Will-serve letter/contract covering wastewater discharge terms	§4.18.1; MM 4.18-4	✓ Addressed
(g)(14)(D)(i)	Monthly/seasonal precipitation and runoff patterns	§4.18.1 (NOAA Atlas 14, Vol. 6 data)	✓ Addressed
(g)(14)(D)(ii)	Drainage facilities, design criteria, design storm, estimated runoff	§4.18.1; Appendix E.1	✓ Addressed
(g)(14)(D)(iii)	Pre/post-construction runoff calculations	§4.18.1; Appendix E.1	✓ Addressed
(g)(14)(D)(iv)	Applicable drainage requirements and compliance discussion	§4.18.2 (Local); §4.18.3	✓ Addressed
(g)(14)(E)(i)	Effects on water supply and other users; basin plan consistency	§4.18.1; §4.18.3; Appendix E.3	✓ Addressed

Ref.	Appendix B Requirement	Section / Table	Status
(g)(14)(E)(iii)	Effects of construction/operation on water quality; BMPs	§4.18.3; MM 4.18-4	✓ Addressed
(g)(14)(E)(iv)	Wastewater disposal effects on receiving waters; ZLD analysis	§4.18.1 (ZLD affirmative explanation provided)	✓ Addressed
(g)(14)(E)(vi)	Effects on 100-year flood plain	§4.18.1; §4.18.3	✓ Addressed
(g)(12)(A)	Phase I ESA per ASTM E1527-21, within 1 year of filing	§4.18.1; Appendix J.1	✓ Addressed
(g)(12)(B)	Detailed waste stream inventory: classification, volumes, frequency	§4.18.1; §4.18.3	✓ Addressed
(g)(12)(C)	Waste disposal site descriptions: name, classification, capacity, closure date	§4.18.1 (Kern County franchise haulers; specific sites at contractor procurement)	✓ Addressed
(g)(12)(D)	Stream-specific waste management methods	§4.18.1; §4.18.3	✓ Addressed
Impact and Disclosure Requirements			
(h)(1)(D)(iii)	Cooling water supply system and pre-plant treatment description	§4.18.1 (Other Utility-Related Infrastructure)	✓ Addressed
(h)(1)(D)(v)	Waste disposal system and on-site disposal sites	§4.18.1; §4.18.3; Hazards and Hazardous Materials section	✓ Addressed

Ref.	Appendix B Requirement	Section / Table	Status
(h)(2)(A)/(B)	Transmission system design; basis for junction; capacity and voltage; expansion capacity	§4.18.1 (Electric Power)	✓ Addressed
(h)(3)(A)	Sources and availability of fuel over service life	§4.18.1 (Other Utility-Related Infrastructure)	✓ Addressed
(h)(4)(B)	Annual fuel consumption in BTUs for each mode	§4.18.1 (Other Utility-Related Infrastructure)	✓ Addressed
(h)(4)(C)	Annual net electrical energy produced in MWh for each mode	§4.18.1 (Other Utility-Related Infrastructure)	✓ Addressed
(h)(4)(F)	Alternative generating technologies discussion	§8.0 Alternatives	✓ Addressed
(g)(7)(A)(vi)	Utility capacity, service standards, existing use levels, planned expansion	§4.18.1; §4.18.3; Appendix — Socioeconomic Study	✓ Addressed
(g)(7)(B)(v)	Potential impacts on utility providers; costs; service standards	§4.18.3; Appendix — Socioeconomic Study	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Sections (g)(12) and (g)(14). All criteria addressed in this chapter; full technical disclosure in the Water Supply Assessment and Hydrology Study (filed as supporting exhibits to this Application).

4.18.5 CEC SPPE Appendix B — Additional Utilities and Service Systems Disclosure Requirements

This section provides the additional utilities and service systems disclosure information required by CEC SPPE Appendix B, Sections (g)(7), (g)(12), and (g)(14). This information supplements the CEQA impact analysis provided in Sections 4.18.1 through 4.18.4 above. Appendix B, Sections (g)(12) and (g)(14), require detailed documentation of waste management practices, Phase I ESA findings, water supply sources and characteristics, water demand and mass balance data, drainage design, flood plain analysis, and wastewater treatment capacity. Appendix B,

Section (g)(7), requires documentation of utility capacity and potential impacts on utility providers. Each of these requirements is addressed below.

Phase I Environmental Site Assessment — Appendix B (g)(12)(A)

A Phase I ESA was completed by BSK Associates in accordance with ASTM Designation E 1527-21 within one year prior to Application filing. The ESA identified six Recognized Environmental Conditions (RECs) in total: three on-site RECs (a former on-site structure with potential residual lead-based paint or termiticide impacts; asphalt and concrete rubble; and discarded tires) and three vicinity RECs associated with adjacent properties. No Controlled RECs, Historic RECs, or Vapor Encroachment Concerns were identified. The three on-site RECs are directly relevant to site conditions; the vicinity RECs are noted for completeness. The Project site is not listed on the Cortese List or other hazardous materials databases maintained by DTSC or the SWRCB. The Phase I ESA is provided as Appendix J.1.

Waste Stream Inventory — Appendix B (g)(12)(B)(C)(D)

Construction waste streams include concrete, steel, wood, packaging, scrap materials, and excavated soil. Operational waste streams include municipal solid waste, recyclables, and maintenance-related wastes; regulated streams include UPS battery waste, cooling system maintenance waste, and generator-related wastes. All waste would be characterized under Title 22 CCR and disposed through licensed Kern County franchise haulers to authorized regional facilities. Specific disposal facility names, permit classifications, capacities, and closure dates will be confirmed during contractor procurement and will be incorporated into the Waste Management section of the Application as that information becomes available.

Water Supply Sources and Demand — Appendix B (g)(14)(C)(i)/(iii)/(v)

The primary water supply source is the Inyokern CSD, with two onsite wells and onsite storage as backup. Updated demand estimates from the April 2, 2026 CSD executed Will-Serve Letter are: ADD approximately 40,430 gpd; MOD approximately 60,645 gpd; PHD approximately 101,075 gpd; fire flow 3,000 gpm at 20 psi residual for 4 hours minimum. Total annual operational water use is estimated at approximately 36.83 to 49.10 acre-feet per year (WSA, Appendix E.3). A CSD executed Will-Serve Letter (April 2, 2026) confirming adequate supply is included as an appendix to this Application.

Water Chemistry and Mass Balance — Appendix B (g)(14)(C)(ii)/(iv)/(vii)

Project-specific physical and chemical characterization of CSD source water and anticipated discharge water has not been completed at this conceptual design stage. This gap is acknowledged; the Applicant commits to providing a Project-specific source and discharge water quality characterization to the CEC during final engineering. Water mass balance and heat balance diagrams for average and maximum flow conditions will be developed during final engineering consistent with the Conceptual Basis of Design parameters (PUE 1.41, 12°F CHW differential, 110°F DB/75°F WB design conditions, up to 20,000 gpd adiabatic demand) and will be provided to the CEC as part of final design submittals.

Stormwater Drainage and Flood Plain — Appendix B (g)(14)(D)(i)/(ii)/(iii)/(iv) and (E)(vi)

Average annual precipitation is approximately 4.17 inches (NOAA Atlas 14, Vol. 6). NOAA Atlas 14 frequency data: 0.60 in (2-yr/6-hr), 1.06 in (2-yr/24-hr), 1.65 in (100-yr/6-hr), 3.00 in (100-yr/24-hr). Kern County design basis: 10-year/5-day storm, 2.66 inches. Pre-construction runoff: approximately 0.9 acre-feet; post-construction: approximately 2.2 acre-feet; required retention basin: approximately 2.2 acre-feet. The site is within FEMA Zone A SFHA per the FEMA National Flood Hazard Layer (NFHL) dataset (Figure 4-1, Appendix E.1); no mapped BFE. Little Dixie Wash does not reach the Project area. Maximum modeled onsite depths generally less than 1.0 foot. Conservative BFE criterion: 1.0 foot above finished grade. LOMR pathway committed if required. Hydrology Study prepared using CivilD/HEC-RAS per Kern County Hydrology Manual (Appendix E.1).

Wastewater Disposal and ZLD Analysis — Appendix B (g)(14)(E)(iv)

Sanitary/domestic wastewater is the primary discharge stream (ADWF approximately 6,670 gpd). Cooling tower blowdown is a secondary stream subject to pretreatment characterization; a Wastewater Characterization Report will be submitted to the CSD per MM 4.18-4. The Project is not designed as a zero liquid discharge facility. Conventional blowdown discharge to the CSD's POTW is the preferred approach because ZLD treatment systems at the required scale would impose substantial capital and operational costs that are disproportionate to the environmental benefit, given the CSD's available treatment capacity and the applicable pretreatment framework under 40 CFR Part 403.

Annual Fuel Consumption and Net Electrical Energy — Appendix B (h)(4)(B)/(C)

Testing scenario (50 hrs/unit/yr, individual units): approximately 408,600 gal/yr ($\sim 5.3 \times 10^{10}$ BTU/yr); $\sim 6,000$ MWh/yr. Emergency scenario (150 hrs, all 40 simultaneous): approximately 1,225,800 gal/yr ($\sim 1.6 \times 10^{11}$ BTU/yr); $\sim 14,400$ MWh/yr. Combined planning-level worst case: approximately 1,634,400 gal/yr ($\sim 2.1 \times 10^{11}$ BTU/yr); $\sim 20,400$ MWh/yr. All energy consumed on-site; no grid export. Source: Table AQ-1, Appendix F.1 (LHV 18,390 BTU/lb; 7.09 lb/gal; 204.3 gal/hr per unit at 100% load).

Transmission System — Appendix B (h)(2)(A)/(B)

Electric service: customer-dedicated substation interconnecting with SCE's existing Inyokern 115 kV Substation via two (2) 115 kV overhead subtransmission lines with associated fiber-optic communication cables located within two separate transmission line corridors per SCE MOS174 (March 30, 2026) and Section 2 of this Application. Route 1 of these corridors will be approximately 8,000 linear feet and Route 2, approximately 4,000 linear feet. SCE operating specification, per MOS174, provides 2N utility redundancy to the Project. The SCE owned customer dedicated substation 115 kV bus will connect to the Project owned 115 kV substation bus via a single short over-the-fence 115 kV tie line. The Project's main 34.6 kV bus will be served through two Project owned 115/34.6 kV 60/80/100 MVA step-down transformers from the Project Substation 115 kV ring bus.

Utility Capacity and Provider Impacts — Appendix B (g)(7)(A)(vi)/(B)(v)

Utility capacity, service standards, and existing use levels for all providers are documented in Table 4.18-1 and in the Socioeconomic Study appendix to this Application. All required utility infrastructure improvements would be fully funded by the Applicant, ensuring no increase in costs or reduction in service levels for existing CSD ratepayers.

4.18.6 Cumulative Setting, Impacts and Mitigation Measures

The cumulative analysis area for utilities and service systems encompasses the Inyokern CSD service area and the Indian Wells Valley groundwater basin, which together define the relevant geographic scope for water, wastewater, and groundwater resource impacts. For stormwater, electric, telecommunications, and solid waste, the cumulative area includes the Project's surrounding drainage watershed, SCE's regional transmission service area, and the Kern County franchise waste collection service area, respectively.

Eleven cumulative reference projects were identified and verified for this analysis consistent with CEQA Guidelines §15130(a)(1), spanning energy infrastructure, water supply, transportation, and mining — all resource categories with direct overlap with the Project's construction and operational footprint. The full Cumulative Impacts Analysis is provided in Appendix N.3. The following projects form the cumulative baseline for the utilities and service systems analysis:

- RB Inyokern Solar Project (Past — Certified EIR): Utility-scale solar PV project on land immediately adjacent to the Project site; establishes the local biological, land use, and groundwater baseline for the Indian Wells Valley (IWV). Desert tortoise habitat documented north of SR-178 adjacent to the Project site.
- Inyokern 1203 Community Solar Farm (Past — Operational since 2016): Community solar PV project interconnected to the SCE Inyokern Substation via the same Kramer 115 kV subtransmission corridor used by the Project; establishes the grid baseline for the Project's electrical interconnection.
- Windhub Solar Project (Past — Prior Approval): Utility-scale solar PV project adding to the cumulative IWV solar footprint; contributes to cumulative biological resource disturbance and minor construction-phase water demand.
- Edwards AFB Solar Project (Past — Certified EIR): Large-scale solar project contributing to cumulative Mojave Desert habitat disturbance and construction-phase diesel equipment emissions on shared SR-14/SR-58 access corridors.
- IWVGA Imported Water Pipeline (Present — EIR in Progress, SCH# 2023080020): The highest-priority cumulative project for water supply. This 50-mile pipeline is the primary structural remedy for the IWV basin's 24,990 AFY overdraft documented in the WSA. The projected 2030 imported water initiation is the IWVGA Groundwater Sustainability Plan's critical sustainability inflection point. The pipeline also traverses BLM Areas of Critical Environmental Concern (ACECs) with documented biological and cultural resource values.
- SR-178 Rehabilitation — Segment 1 (09-38331) (Present — CON April 2027, \$26.6M, Caltrans District 9): Active construction on the Project's primary east-west access corridor (SR-178/West Inyokern Road) directly concurrent with the data center's Phase 1

construction window beginning 2027. Lane closures and flagging operations will conflict with heavy equipment and materials delivery traffic. Coordinated construction traffic management is addressed through MM 4.18-1.

- SR-178 Rehabilitation — Segment 2 (09-38330) (Present — CON July 2027, \$34.7M, Caltrans District 9): Completes the SR-178 corridor rehabilitation program (PM 88.6 to PM R93.4, combined \$61.3M); extends the concurrent construction traffic overlap on the Project's primary access corridor through the Phase 1 construction window.
- Mojave Life of Mine Reclamation — CalPortland (Present — NOP August 2024, EIR in Progress): Active mining reclamation generating heavy truck traffic on SR-14 and SR-58 haul corridors, contributing to the cumulative PM10/PM2.5 baseline on primary Project access routes.
- Pappas Solar Project — Radiant BMT LLC (Future — NOP March 2026, EIR in Preparation): The most recent IWV CEQA filing as of April 2026. Adds to the cumulative desert tortoise, Mohave ground squirrel, and special-status plant habitat disturbance inventory in the Indian Wells Valley. Biological and visual resource overlaps are directly relevant to this analysis.
- SR-14 Shoulder Widening (09-39140) (Future — CON estimated March 2030, \$60.8M, Kern COG): Construction phase estimated to overlap with Phases 2 and 3 of the 48-month data center construction schedule (2029–2031). SR-14 is the primary materials and labor delivery corridor from the Antelope Valley.
- Coso Geothermal Complex — Units 1–3 (Baseline — Operating since 1987–1991): The dominant existing industrial baseline for the IWV region. At 430 MW operating capacity, Coso Geothermal is the controlling existing load on the Kramer 115 kV subtransmission system, the dominant historical contributor to the IWV groundwater overdraft baseline, and the foundation of the Section 106/NHPA cultural resource protection framework for the IWV (Coso Rock Art District). Confirmed by SCE MOS174 (March 30, 2026) as the primary existing system load against which the Project's 99 MW interconnection request was evaluated.

Cumulative impacts related to utilities and service systems would occur if the Project, in combination with other past, present, and reasonably foreseeable future development in the applicable service areas, would require substantial new regional utility infrastructure or would contribute to a cumulative shortage in water, wastewater, stormwater, energy, telecommunications, or solid waste service capacity.

As discussed above, the CSD has issued an executed Will-Serve Letter (April 2, 2026) confirming that sufficient water and wastewater capacity is available to serve the Project. The Water Supply Assessment (Appendix E.3) evaluates the Indian Wells Valley water supply context, including IWVGA Groundwater Sustainability Plan considerations, and concludes that the Project's anticipated demands are within the available supply framework. Other Projects in the area would be subject to the same CEQA review requirements and applicable codes and standards, including the IWVGA GSP requirements and EKAPCD permit conditions, that ensure each Project's incremental contribution to regional utility demand is individually and cumulatively considered.

The Project's stormwater runoff would be managed onsite through a retention basin in accordance with Kern County drainage standards, avoiding any increase in offsite discharge and ensuring no adverse cumulative contribution to downstream drainage systems.

Electric service would be coordinated through SCE's Method of Service process. Natural gas service feasibility has been identified at a screening level. Telecommunications service would be provided through an onsite connection to a redundant backbone network.

The Project may require localized utility improvements; however, these improvements are limited to those necessary to serve the Project and do not indicate the need for major offsite regional utility expansion. The Project's utility approach is consistent with the Kern County General Plan goals and policies for industrial development and the Inyokern Specific Plan utility policies, both of which are incorporated by reference.

Accordingly, the Project would not make a cumulatively considerable contribution to a significant cumulative impact related to utilities and service systems.

Mitigation Measures: Implementation of Mitigation Measures MM 4.18-1 through MM 4.18-7 would be required.

Level of Significance: With implementation the stated mitigation measure, cumulative impacts would be less than significant.

4.19 ENVIRONMENTAL JUSTICE

Introduction

This section of the Application discusses the environmental justice setting in the Project area and evaluates whether construction, operation, and maintenance of the RB Inyokern Data Center Project (Project) would result in disproportionately high and adverse effects on populations classified as disadvantaged.

This section is included to comply with requirements of the California Energy Commission (CEC) SPPE review process. The CEQA Guidelines do not include an environmental justice review or establish thresholds of significance for this subject area, and Kern County does not require such an analysis as a standalone section.

Relevant information from the Project Description, Site Plan (Appendix A.1), the Air Quality Impact Analysis (Appendix F.1), the Acoustical Analysis (Appendix G.1), the Trip Generation and Vehicle Miles Traveled Analysis (Appendix H.1), and the Conceptual Lighting Management Plan (Appendix I.1) is discussed in this section.

Additional information regarding utility service assumptions, hazardous materials handling, and public service coordination is discussed in the corresponding technical sections and supporting project materials referenced in this section.

CEC SPPE Appendix B requirements applicable to this section are addressed in Section 4.19.5 of this chapter.

CEC SPPE Appendix B — Section (g)(7) Applicability

California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(7) requires the following information for the Socioeconomics resource area, which includes Environmental Justice:

(g)(7)(A) A description of the existing socioeconomic conditions in the area affected by the project, including current employment levels, local and regional economic activity, and the character of communities in the vicinity of the project site.

(g)(7)(B) A description of the expected direct, indirect, and cumulative socioeconomic impacts of construction, operation, and maintenance of the project, including: (i) effects on local and regional employment during construction and operation; (ii) effects on local tax revenues and public services; (iii) effects on property values; (iv) effects on the character of communities; (v) any environmental justice considerations, including whether project impacts would create disproportionately high and adverse human health or environmental effects on minority populations or low-income populations.

(g)(7)(C) A description of measures proposed to avoid or mitigate adverse socioeconomic impacts and an evaluation of their effectiveness.

(g)(7)(D) Any monitoring plans proposed to verify the effectiveness of the measures.

(g)(7)(E) The approach, list, or projection used to develop the cumulative setting for the socioeconomic analysis, including any reference materials such as general plans or other adopted plans.

All Section (g)(7) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.19.1–4.19.4. The Appendix B supplemental disclosure is provided in Section 4.19.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.19-A, immediately preceding Section 4.19.4.

Definition of “Environmental justice”

Environmental Justice is defined in California law as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. (Cal. Gov. Code, § 65040.12, subd. (e).)

4.19.1 Environmental Setting

Regional and Local Setting

Project Location and Description

The Project is located in the eastern high desert region of Kern County within the unincorporated community of Inyokern. The Project Site is located between U.S. Route 395 to the east and North Brown Road to the west, north of Inyokern Road/State Route 178 (SR 178), while the Southern California Edison (SCE) substation and associated aboveground transmission facilities are located south of SR 178. The Project proposes construction and operation of an approximately 50-acre, continuously operational 99-megawatt Tier III hyperscale data center with associated utility infrastructure, including a Project-owned substation interconnecting with SCE’s existing Inyokern substation. The data center would be approximately 238,000 square feet, single-story, with a maximum height of 30 feet and six modular data suites. The Project Site is within the Kern County Inyokern Specific Plan and is designated 7.2/2.5 (Service Industrial/Flood Hazard) and zoned M-2 PD (Medium Industrial – Precise Development Plan) by the Kern County Zoning Ordinance.

Environmental Justice Study Area and Screening

The environmental justice study area is centered on the Inyokern community and nearby areas that could reasonably experience Project-related construction, operation, and maintenance effects, including nearby sensitive receptors and community members potentially affected by emissions, dust, noise, traffic, lighting, utility demand, hazardous materials handling, and public service

demand. Environmental justice is evaluated in this section through the underlying technical impact pathways rather than as a stand-alone physical impact category.

Inyokern is not identified as a disadvantaged community under CalEnviroScreen 4.0 or the SB 535 Disadvantaged Communities Map. The Inyokern Census Designated Place (CDP) has a CalEnviroScreen 4.0 percentile score of 66, which is below the 75th percentile threshold used to identify disadvantaged communities for state screening purposes. Demographic and health indicators remain relevant to the evaluation of potential vulnerability.

The Inyokern CDP has a population of approximately 988 residents. The largest racial or ethnic group is White, at approximately 67 percent, while Hispanic or Latino residents account for approximately 16 percent. According to CalEnviroScreen 4.0, the Inyokern census tract has an asthma percentile of 79 and a cardiovascular disease percentile of 96, indicating elevated health sensitivity relative to other California census tracts. These indicators inform community sensitivity but do not themselves demonstrate that the Project causes or contributes to those conditions.

4.19.2 Regulatory Setting

Federal

Uncertainty exists regarding the scope and specific impacts of Trump Administration Executive Orders (E.O(s)) on the federal Environmental Protection Agency (EPA) and other federal environmental-justice-related activities and programs, in the context of existing statutory requirements. The term “*environmental justice*” is not defined in federal law in a manner applicable across federal agencies or activities, which adds uncertainty within the scope of the Trump Administration E.O.s.

For completeness, the following federal regulatory setting is noted for reference:

Two E.O.s issued by President Trump revoke prior E.O.s related to environmental justice, while a third E.O. could have additional implications for EPA offices and programs related to environmental justice.

- E.O. 14148, "Initial Recissions of Harmful Executive Orders and Actions," signed by President Trump on January 20, 2025, revokes E.O.s 14008 and 14096, among other E.O.s.
- E.O. 14173, "Ending Illegal Discrimination and Restoring Merit-Based Opportunity," signed by President Trump on January 21, 2025, revokes E.O. 12898, among other directives.
- E.O. 14151, "Ending Radical and Wasteful Government DEI Programs and Preferencing," signed by President Trump on January 20, 2025, includes directives applicable to federal environmental justice programs and activities. Section 2(b)(i) of E.O. 14151 directs each agency to "terminate, to the maximum extent allowed by law, all DEI, DEIA, and 'environmental justice' offices and positions." Section 2 of the E.O. also directs agencies to provide the Office of Management and Budget with a list of "'environmental justice' positions, committees, programs, services, activities, budgets,

and expenditures in existence on November 4, 2024" and an assessment of whether they "have been misleadingly relabeled in an attempt to preserve their pre-November 4, 2024 function." Further, Section 2 of the E.O. directs executive branch agencies to provide a list of their federal grantees who received federal funding to "provide or advance ... 'environmental justice' programs, services, or activities since January 20, 2021" and to "assess the operational impact ... and cost of the prior administration's DEI, DEIA, and 'environmental justice' programs and policies."

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President Trump's recent Executive Orders rescinds the following:

- E.O. 12898. President Clinton issued E.O. 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," on February 11, 1994. E.O. 12898 directed EPA and certain other executive departments and agencies to make achieving environmental justice part of their mission to "the greatest extent practicable and permitted by law." E.O. 12898 also specifically directed EPA to convene the Federal Interagency Working Group on Environmental Justice (Interagency Working Group), composed of the heads of certain executive agencies, departments, and offices.
- E.O. 14008. "Tackling the Climate Crisis at Home and Abroad," signed by President Biden on January 27, 2021, amended E.O. 12898. Among other provisions, E.O. 14008 expanded the environmental justice directives to EPA and other covered federal agencies and established the Justice40 initiative. E.O. 14008 also restructured the Interagency Working Group into the White House Environmental Justice Interagency Council (Interagency Council) and established a White House Environmental Justice Advisory Council.
- E.O. 14096. "Revitalizing Our Nation's Commitment to Environmental Justice for All," signed by President Biden on April 21, 2023, set out a "whole-of-government" approach to environmental justice and applied to a broader set of federal agencies than prior E.O.s. E.O. 14096 established new directives and expanded other directives for executive branch agencies to make achieving environmental justice part of their missions, consistent with E.O. 12898 and subject to each agency's statutory authority. For example, E.O. 14096 directed each covered agency to submit an Environmental Justice Strategic Plan to the Council on Environmental Quality (CEQ). E.O. 14096 also modified the membership of the Interagency Council and established a new White House Office of Environmental Justice within CEQ. Further, E.O. 14096 directed these agencies to consider environmental justice in the National Environmental Policy Act federal environmental review process. E.O. 14096 specified a new definition of environmental justice for consideration by EPA and all other covered departments and agencies when implementing E.O. directives.

Environmental Protection Agency (EPA)

The EPA's work on environmental justice began in the 1990s and has expanded over time to include grant programs, technical assistance, interagency workgroups, and advisory groups. EPA also has developed environmental justice policy guidance and screening tools to evaluate policy options and regulatory approaches, within the bounds of existing statutory authorities. Some activities were created under specific directives to EPA in E.O.s or statute, while EPA has established other activities through its interpretations of the agency's general statutory authority and responsibilities. Selected examples of programs and activities that could be evaluated for whether they fall within or outside the scope of the Trump Administration E.O.s include the following:

- **Office of Environmental Justice and External Civil Rights (OEJEER).** OEJEER is responsible for providing training and technical assistance, developing and managing screening and mapping tools, and coordinating with other agencies in their consideration of environmental justice. OEJEER also administers several environmental justice grant programs, authorized in statute, that provide federal assistance to states, tribes, local governments, and community-based organizations.
- **White House Environmental Justice Interagency Council.** EPA served as a member of the Interagency Council established by President Biden in E.O. 14008.
- **White House Environmental Justice Advisory Council (WHEJAC).** As directed in E.O. 14008, EPA provided funding and administrative support to the WHEJAC, which included experts and representatives of environmental justice groups appointed by the President.
- **National Environmental Justice Advisory Council (NEJAC).** Established prior to E.O. 12898 on September 30, 1993, NEJAC serves as a federal independent advisory committee to EPA.
- **EJSCREEN.** Launched in 2015, EJSCREEN is an online screening and mapping tool intended to provide environmental and demographic data for specific locations.
- **EPA Justice40 Covered Programs.** Under E.O. 14008, EPA identified 74 investments, programs, and funding opportunities it considers to be Justice40 covered programs included in calculating the flow of federal benefits to disadvantaged communities.
- **EPA Strategic Plans and Regulatory Guidance.** In EPA strategic plans published in recent decades, the agency described how it intended to incorporate environmental justice into its regulatory development, standards-setting, and other programs published in recent decades. EPA also issued guidance and technical information to regulators for considering environmental justice in regulatory actions, within the scope of existing law.

Executive Order 14281

On April 23, 2025, President Trump signed an executive order, “Restoring Equality of Opportunity and Meritocracy,” focused on Title VI of the Civil Rights Act of 1964 to eliminate "disparate impact" liability. The order directs federal agencies to stop using, and to repeal, regulations that punish policies causing a disproportionate adverse effect on protected groups unless intentional discrimination is proven, prioritizing "meritocracy".

Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color, or national origin in programs receiving federal funding, serving as a critical tool against disparate treatment under environmental laws. It applies to federal permitting and siting decisions, requiring agencies like the EPA to ensure funded state/local activities do not cause disproportionate, adverse environmental impacts on protected communities.

State

As stated above, the State of California defines “environmental justice” as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies, and fair treatment means that no group should bear a disproportionate share of negative environmental consequences from industrial, governmental, and commercial operations and policies.

California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (14 California Code of Regulations Section 15000 et seq.)

While Appendix G of CEQA does not contain a dedicated section labeled "Environmental Justice," it is used to analyze EJ-related impacts. It requires assessing, among other topics, whether projects disproportionately impact disadvantaged communities (DACs) through air quality, traffic, and noise impacts, or conflict with local plans aimed at mitigating such issues.

For context, under CEQA, a substantial adverse impact on human beings, whether direct or indirect, holds special legal status. (Cal. Code Regs, tit. 14, § 15065, Mandatory Findings of Significance). A disparate or discriminatory environmental impact is one such potential impact on human beings. Whether viewed from a civil rights disparate impact lens or from a conventional cumulative impact lens, lead agencies that receive state or federal funding should include a disparate impact analysis in their CEQA analysis under both state and federal law (Cal. Gov. Code § 11135; Title VI of the Civil Rights Act of 1964) and further include less discriminatory options in any alternatives analysis.

- (c) **Final Designation of Disadvantaged Communities (May 2022).** In May 2022, CalEPA released its updated designation of disadvantaged communities for the purpose of SB 535. In this designation, CalEPA formally designated four categories of geographic areas as disadvantaged:
- (d) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0 (1,984 tracts).

- (e) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores (19 tracts).
- (f) Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0 (307 tracts).
- (g) Lands under the control of federally recognized Tribes. For purposes of this designation, a Tribe may establish that a particular area of land is under its control even if not represented as such on CalEPA's DAC map and therefore should be considered a DAC by requesting a consultation with the CalEPA Deputy Secretary for Environmental Justice, Tribal Affairs and Border Relations.

The designation takes into account the latest and best available data and considers factors related to data unavailability. This designation went into effect on July 1, 2022, at which point programs funded through California Climate Investments will use the designation in making funding decisions.

Additionally, pursuant to SB 1000, the definition of Disadvantaged Community, an area is considered low-income if the area's household incomes are at or below 80% of the statewide median income or at or below the threshold designated as low income by the Department of Housing and Community Development. (Gov. Code, § 65302, subd. (h)(4)(C).) SB 1000 also defines a disadvantaged community as one that has been identified by CalEPA pursuant to section 39711 of the Health and Safety Code or as an area that is a low-income area and is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation. (Gov. Code, § 65302, subd. (h)(4).) A community may not meet the threshold for low income according to state median income, but may be under resourced as compared to other communities in the planning area.

- d. **Land Use and Planning:** Appendix G checks if a project conflicts with land use plans (e.g., General Plan Environmental Justice elements), which often focus on protecting disadvantaged communities. Because CEQA requires assessing compliance with local plans, environmental justice policies adopted into the County's General Plan become part of the mandatory CEQA review process.

SB 1000 is triggered when local governments adopt or revise two or more general plan elements concurrently. (Gov. Code, § 65302, subd. (h)(2).) Local governments should comply with SB 1000 when they are working on updates to multiple elements of their general plans. Jurisdictions can comply with SB 1000 by developing a stand-alone Environmental Justice Element (EJ Element) as part of their general plan, by adopting environmental justice policies incorporated in other elements throughout the general plan, or through a hybrid approach that does both.¹⁴ Regardless of which method a local government chooses, clarity is key. If policies are spread throughout a general plan, the policies should be clearly labeled as environmental justice policies and must address each of the required categories. (Gov. Code, § 65302, subd. (h)(1).)

- e. **Air Quality and Health Risks:** Significant impacts are analyzed regarding air pollutant emissions, particularly in areas with existing pollution burdens, to avoid aggravating conditions in vulnerable communities.

AB 617 Community – An Assembly Bill (AB) 617 community is affected by a high cumulative exposure burden for toxic air contaminants and criteria air pollutants, selected by the California Air Resources Board (CARB) governing board, that works with the Eastern Kern Air Pollution Control District (EKAPCD) to develop and implement community air monitoring plans and emission reduction programs to reduce air pollution and the associated health impacts within the community.

Based on general California EPA and federal guidance utilized in air planning, the Eastern Kern Air Pollution Control District (EKAPCD) generally recognizes overburdened communities as geographic areas, including minority, low-income, and tribal populations, that face disproportionate environmental harms, risks, and cumulative pollution impacts.

The District frequently operates under definitions aligned with California's CalEnviroScreen, which maps disadvantaged communities facing high pollution burdens, such as those caused by particulate matter or ozone.

- f. **Hazardous Materials:** Analysis of locating new projects that handle hazardous materials in proximity to schools or existing residential communities.

California prioritizes environmental justice (EJ) to protect vulnerable, low-income, and minority communities from disproportionate hazardous material exposure. The Department of Toxic Substances Control (DTSC) and the California Environmental Protection Agency (CalEPA) enforce regulations, aiming to address cumulative pollution impacts, illegal dumping, and safety in neighborhoods near toxic facilities.

The DTSC and CalEPA programs promotes environmental justice to prevent harm and protect California's most vulnerable and environmentally burdened communities. We work to broaden the transparency of DTSC's programs, support precautionary approaches, and challenge existing inequities. We strive to support community-led solutions and develop justice-informed approaches to collaboration, research, policy, and resource decisions. Environmental Justice is one of five primary goals in DTSC's 2020-2024 Strategic Plan. DTSC's Environmental Justice program is part of the Office of Environmental Equity, which includes its Public Participation and Tribal Affairs programs.

CalEnviroScreen is used to identify communities most burdened by environmental hazards.

CEC SPPE Appendix B (California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(7))

CEC SPPE Appendix B requires discussion, for each technical area, of existing site conditions; expected direct, indirect, and cumulative impacts due to construction, operation, and maintenance; the measures proposed to mitigate adverse impacts; the effectiveness of the proposed measures; any monitoring plans proposed to verify mitigation effectiveness; and the approach, list, or projection used to develop the cumulative setting, including reference materials such as general plans or other adopted local, regional, or statewide plans. Appendix B also specifically requires, within the Socioeconomics discussion, a discussion of impacts to environmental justice populations by technical area and whether any impacts would disproportionately affect environmental justice populations.

Planning for Healthy Communities Act (SB 1000)

Senate Bill (SB) 1000, adopted in 2016, promotes environmental justice through local land use planning. The law requires local governments with disadvantaged communities in their planning areas to develop environmental justice policies as part of their general plans. Since the law went into effect in 2018, the California Attorney General's Bureau of Environmental Justice (Bureau) has monitored local governments' implementation of SB 1000.

The purpose of SB 1000 is to "address unique or compounded health risks in disadvantaged communities by decreasing pollution exposure, increasing community assets, and improving overall health."⁶ The legislature adopted the law in recognition of a finding by the California Environmental Protection Agency (CalEPA) that 9.4 million Californians lived in communities with high pollution burdens from multiple sources and were also vulnerable for socioeconomic reasons or other factors.⁷ Accordingly, the law requires local governments to take into account disproportionate pollution burdens and the unique health risks that accompany exposures experienced by low-income communities.

SB 1000 requires local governments to include an "Environmental Justice" element in their General Plans when updating two or more other elements. This is intended to reduce health risks in disadvantaged communities (DACs) by addressing pollution exposure, food access, and safe housing.

The Bureau of Environmental Justice within the Attorney General's office actively monitors SB 1000 compliance across the state. While Kern County is not currently under a stipulated judgment specifically for SB 1000, it did enter a Stipulated Judgment with Attorney General Rob Bonta in December 2023 to resolve unrelated "Free Speech Policy" violations regarding county contractors.

The Attorney General has published guidance to help local governments comply with SB 1000. The guidance documents discuss the historical background of environmental justice, including the legacy of discriminatory land use policies that led to pollution inequities that persist today. A key

goal of SB 1000 is to reduce disproportionate pollution burdens, including the unequal impacts of climate change. The

SB 1000 requires local governments to develop environmental justice policies that encompass eight broad topics. At a minimum, pursuant to Government Code, § 65302, subd. (h)(1)(A), governments must develop policies that further the following goals:

- a. reduce exposure to pollution, including both indoor and outdoor air pollution;
- b. increase access to public facilities;
- c. increase healthy food access;
- d. promote safe and sanitary homes;
- e. enable physical activity;
- f. promote civil engagement in the public decision making process;
- g. identify objectives and policies that prioritize improvements and programs that address the needs of disadvantaged communities; and
- h. address other unique or compounded health risks of disadvantaged communities.

Note that one policy can fall under more than one category.

Local

Kern County General Plan

Kern County intends to satisfy SB 1000 requirements by integrating Environmental Justice (EJ) policies directly into its General Plan 2040 update rather than creating a standalone element. This "integrated approach" is a legally valid method allowed under the Planning for Healthy Communities Act to address the needs of disadvantaged communities (DACs).

Kern County General Plan: The following goals, policies, and implementation measures from the Kern County General Plan are applicable to the environmental justice issues evaluated in this section.

As discussed in the impacts analysis below and the Regulatory Setting element of the following sections of this Application, Kern County General Plan components, incorporated by reference, relevant to Environmental Justice issues include:

- (d) **Section 4.2 - Air Quality.** Chapter 1: Land Use, Conservation, and Open Space Element (Air Quality), (1.3: Residential) and (1.6: Resource); Chapter 5: Energy Element (Solar Energy Development).
- (e) **Section 4.13 – Noise.** Chapter 3: Noise Element.
- (f) **Section 4.1 – Aesthetics.** Chapter 4: Visual Resources.
- (g) **Section 4.16 - Transportation and Traffic.** Chapter 2: Circulation Element
- (h) **Section 4.15 – Public Facilities.** Water Supply, Wastewater, and Utilities. Chapter 1: Land Use, Conservation and Open Space Element — 1.4: Public Facilities and Services and 1.10.1: Public Services and Facilities.

- (i) **Section 4.9 - Hazards and Hazardous Materials.** Chapter 1: Land Use, Open Space and Conservation Element, 1.3: Physical and Environmental Constraints; Chapter 2: Circulation Element, 2.5.4: Transportation of Hazardous Materials; Chapter 4: Safety Element — 4.6: Wildland and Urban Fire Safety Element; Chapter 5: Energy Element; 5.4.5: Solar Energy Development.
- (j) **Section 4.15 - Public Services.** Chapter 1: Land Use, Conservation and Open Space Element — 1.4: Public Facilities and Services, 1.10.1: Public Services and Facilities; Safety Element — 4.6: Wildland and Urban Fire. Inyokern Specific Plan: Land Use, Open Space, and Conservation Element — 1.2: Public Facilities.

Noise Element (Chapter 3)

- Goal 1:** Ensure that residents of Kern County are protected from excessive noise and that moderate levels of noise are maintained.
- Policy 1:** Review discretionary industrial, commercial, or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses.
- Policy 5:** Prohibit new noise-sensitive land uses in noise-impacted areas unless effective mitigation measures are incorporated into the project design. Such mitigation shall be designed to reduce noise to the following levels: (a) 65 dB Ldn or less in outdoor activity areas; (b) 45 dB Ldn or less within interior living spaces or other noise sensitive interior spaces.
- Measure F:** Require proposed commercial and industrial uses or operations to be designed or arranged so that they will not subject residential or other noise sensitive land uses to exterior noise levels in excess of 65 dB Ldn and interior noise levels in excess of 45 dB Ldn.
- Measure G:** At the time of any discretionary approval, such as a request for a General Plan Amendment, zone change or subdivision, the developer may be required to submit an acoustical report indicating the means by which the developer proposes to comply with the noise standards.

Aesthetics and Lighting Element (Chapter 4, Visual Resources)

- Policy 47:** Ensure that light and glare from discretionary new development Projects are minimized in rural as well as urban areas.
- Policy 48:** Encourage the use of low-glare lighting to minimize nighttime glare effects on neighboring properties.
- Measure AA:** The County shall utilize CEQA guidelines and the provisions of the Zoning Ordinance to minimize the impacts of light and glare on adjacent properties and in rural undeveloped areas.

All policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Land Use, Open Space, and Conservation Element (Chapter 1) — Section 1.10.2: Air Quality

Policy 18: The air quality implications of new discretionary land use proposals shall be considered in approval of major developments. Special emphasis will be placed on minimizing air quality degradation in the desert to enable effective military operations and in the valley region to meet attainment goals.

Policy 20: The County shall include fugitive dust control measures as a requirement for discretionary projects and as required by the adopted rules and regulations of the San Joaquin Valley Unified Air Pollution Control District and the Kern County Air Pollution Control District on ministerial permits.

Policy 21: The County shall support air districts' efforts to reduce PM10 and PM2.5 emissions.

Measure F: All discretionary permits shall be referred to the appropriate air district for review and comment.

Measure G: Discretionary development projects involving the use of tractor-trailer rigs shall incorporate diesel exhaust reduction strategies including, but not limited to: (a) Minimizing idling time; (b) Electrical overnight plug-ins.

Land Use, Open Space, and Conservation Element (Chapter 1) — Section 1.4: Public Facilities and Services

Goal 1: Kern County residents and businesses should receive adequate and cost effective public services and facilities. The County will compare new urban development proposals and land use changes to the required public services and facilities needed for the proposed project.

Goal 2: Promote an urban growth pattern in areas where adequate public service infrastructure exists or can be provided.

Goal 3: Distribute the cost of new services or facilities equitably among the beneficiaries.

Goal 6: Provide a healthful and sanitary means of collecting, treating, and disposing of sewage and refuse for the residents and industries of Kern County.

Goal 7: Facilitate the provision of reliable and cost effective utility services to residents of Kern County.

Policy 1: New discretionary development will be required to pay its proportional share of the local costs of infrastructure improvements required to service such development.

Policy 2: The efficient and cost-effective delivery of public services and facilities will be promoted by designating areas for urban development which occur within or adjacent to areas with adequate public service and facility capacity.

Policy 6: The County will ensure adequate fire protection to all Kern County residents.

Policy 7: The County will ensure adequate police protection to all Kern County residents.

Land Use, Open Space, and Conservation Element (Chapter 1) — Section 1.10.1: Public Services and Facilities

Policy 9: New development should pay its pro rata share of the local cost of expansions in services, facilities, and infrastructure which it generates and upon which it is dependent.

Policy 15: Prior to approval of any discretionary permit, the County shall make the finding, based on information provided by California Environmental Quality Act (CEQA) documents, staff analysis, and the applicant, that adequate public or private services and resources are available to serve the proposed development.

Policy 16: The developer shall assume full responsibility for costs incurred in service extensions or improvements that are required to serve the project. Cost sharing or other forms of recovery shall be available when the service extensions or improvements have a specific quantifiable regional significance.

Land Use, Open Space, and Conservation Element (Chapter 1) — Section 1.3: Physical and Environmental Constraints

Policy 1: Kern County will ensure that new developments will not be sited on land that is physically or environmentally constrained to support such development unless appropriate studies establish that such development will not result in unmitigated significant impact.

Policy 2: In order to minimize risk to Kern County residents and their property, new development will not be permitted in hazard areas in the absence of implementing ordinances and programs. These ordinances will establish conditions, criteria, and standards for the approval of development in hazard areas.

Policy 3: Zoning and other land use controls will be used to regulate and, in some instances, to prohibit development in hazardous areas.

Circulation Element (Chapter 2) — Section 2.5.4: Transportation of Hazardous Materials

Goal 1: Reduce risk to public health from transportation of hazardous materials.

- Policy 1:** The commercial transportation of hazardous material, identification and designation of appropriate shipping routes will be in conformance with the adopted Kern County and Incorporated Cities Hazardous Waste Management Plan.
- Policy 2:** Kern County and affected cities should reduce use of County-maintained roads and city-maintained streets for transportation of hazardous materials.
- Measure A:** Roads and highways utilized for commercial shipping of hazardous waste destined for disposal will be designated as such pursuant to Vehicle Code Sections 31303 et seq. Permit applications shall identify commercial shipping routes they propose to utilize for particular waste streams.

Safety Element (Chapter 4) — Section 4.6: Wildland and Urban Fire

- Policy 1:** Require discretionary projects to assess impacts on emergency services and facilities.
- Policy 4:** Ensure that new development of properties have sufficient access for emergency vehicles and for the evacuation of residents.
- Policy 6:** All discretionary projects shall comply with the adopted Fire Code and the requirements of the Fire Department.
- Measure A:** Require that all development comply with the requirements of the Kern County Fire Department or other appropriate agency regarding access, fire flows, and fire protection facilities.

The Inyokern Specific Plan is a subset of the Kern County General Plan and provides policies on land use, environmental resource areas, development standards, and specific Kern County requirements applicable to the Project Site. The Project Site is designated 7.2/2.5 (Service Industrial/Flood Hazard) under the Inyokern Specific Plan.

All policies, goals, and implementation measures in the Inyokern Specific Plan are incorporated by reference.

This section also relies on the applicable regulatory requirements addressed in the Project's individual technical sections, including requirements governing air quality, noise, traffic and circulation, lighting, utilities, hazardous materials, emergency response, and public services. These requirements are referenced in the individual analyses in Section 4.19.4.

4.19.3 Existing Conditions

The Project's environmental justice review uses CalEnviroScreen 4.0 and SB 535 screening information to identify whether the Project is located within or adjacent to a community recognized

by the State as disadvantaged. CalEnviroScreen 4.0 is a screening tool developed by OEHHA and used by CalEPA to evaluate census-tract pollution burden and population vulnerability indicators and produce an overall score. SB 535 disadvantaged-community designations rely on CalEnviroScreen-based criteria, including tracts in the highest 25 percent of scores and certain other designated areas.

As noted in Section 4.19.1, Inyokern is not identified as a disadvantaged community under either CalEnviroScreen 4.0 or SB 535. Nonetheless, because portions of the local population may be sensitive to environmental stressors based on the health indicators discussed in Section 4.19.1, the Project has been evaluated to determine whether physical impacts identified in the technical studies would result in disproportionately high and adverse effects on environmental justice populations in the Inyokern area.

4.19.4 Impacts and Mitigation Measures

Methodology

The evaluation of potential environmental justice impacts proceeds in three parts: (1) identification of the existing conditions and community characteristics of the affected area, including CalEnviroScreen screening results and demographic indicators; (2) determination of whether construction, operation, and maintenance of the Project would result in significant physical impacts in technical areas commonly associated with environmental justice; and (3) determination of whether any identified significant impacts would disproportionately affect environmental justice populations.

For each element related to EJ issues, the analysis relies on the findings of the submitted technical studies listed in the Introduction. Where a technical study concludes that impacts in a given area would be less than significant, the EJ analysis relies on that conclusion to determine that no disproportionate EJ burden would result. Pathways for which no standalone technical study was submitted are evaluated based on the Project's design, operational characteristics, and applicable regulatory compliance requirements.

Thresholds of Significance

Consistent with the Kern County CEQA Implementation Document and CEQA Guidelines Appendix G, an environmental justice impact would be considered significant if the Project would result in disproportionately high and adverse human health or environmental effects on minority populations or low-income populations.

For each technical area, the significance threshold is whether the Project's physical impacts in that area would be borne disproportionately by environmental justice populations relative to the broader population.

Because Inyokern is not identified as a disadvantaged community under CalEnviroScreen 4.0 or SB 535, the threshold is whether the Project would create new or materially worsen existing burdens on the community's more sensitive subpopulations, as indicated by the health vulnerability factors discussed in this section.

Air Quality

This impact evaluates whether the Project would generate air quality impacts that would disproportionately affect environmental justice populations in the Inyokern area.

Construction

Construction of the Project would generate temporary emissions from construction equipment, worker trips, vendor trips, delivery vehicles, and fugitive dust associated with grading and site disturbance. Air quality is an appropriate environmental justice pathway because construction emissions and dust could add to existing burdens affecting nearby sensitive receptors. As discussed in Section 4.3, Air Quality, the Project's Air Quality Impact Analysis (QK, February 2026) was prepared pursuant to CEQA, EKAPCD guidance, and Appendix B, and concludes that construction emissions would be addressed through standard construction-related mitigation and compliance measures, including EKAPCD Rule 402 fugitive dust controls.

Operation

Operation of the Project would generate ongoing emissions associated with employee trips, maintenance activity, and any operational emission sources identified in the air quality analysis. The Air Quality Impact Analysis concludes that operational emissions would be below applicable significance thresholds. The Project's cumulative air quality discussion is based on whether the Project's incremental effects are cumulatively considerable when viewed with past, present, and future development in the Basin. Based on those underlying conclusions and controls, the Project would not result in disproportionately high and adverse air quality effects on environmental justice populations. No disadvantaged community would be impacted.

Implementation and verification for air quality would occur through the permitting, plan review, inspection, and complaint-response mechanisms applicable to the Project's air quality controls and permit requirements.

Conclusions

As discussed in Section 4.3, *Air Quality*, the Project's Air Quality Impact Analysis (QK, February 2026):

- **Sensitive Receptors.** The nearest residential sensitive receptors to the proposed Project are located adjacent to portions of the Project's sites including the Inyokern Elementary School located 0.23 miles and Inyokern Senior Center located 0.24, both located southwest from the Project Site.
- **Potential Impacts to Visibility to Nearby Class 1 Areas.** Because the Project's PM10 emissions increases are predicted to be less than the PSD threshold levels, an impact at any Class 1 area or military/airspace operation within 100 kilometers of the Project is extremely unlikely. Therefore, based on the Project's predicted less-than significant PM10 emissions, the Project would be expected to have a less than significant impact to visibility at any Class 1 area or military/airspace operation.

- **Potential Impacts from Carbon Monoxide.** A traffic study was completed for this Project (Ruettggers, 2026). According to the traffic study, impacted intersections and roadway segments are anticipated to operate at a LOS of C or better. Therefore, CO “hotspot” modeling was not conducted for this Project, and no concentrated excessive CO emissions are expected to be caused once the proposed Project is completed.
- **Predicted Health Impacts.** Projects are considered for potential health risks wherein a new or modified source of Hazardous Air Pollutants (HAPs) is proposed for a location near an existing residential area or other sensitive receptor when evaluating potential impacts related to HAPs. The proposed Project would result in emissions of HAPs from construction and operational activities and would be located near existing residents. The potential health risk attributable to the proposed Project is determined to be less than significant based on the following conclusions:
 - Potential carcinogenic risk from the proposed Project is below the significance level of twenty in a million at each of the modeled receptors.
 - The hazard index for the potential chronic non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.
 - The hazard index for the potential acute non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.

Therefore, potential risk to the population attributable to emissions of HAPs from the proposed Project would be less than significant.

- **Potential Impacts from Valley Fever.** The proposed project has the potential to generate fugitive dust and suspend Valley Fever spores with the dust that could then reach nearby sensitive receptors. It is possible that onsite workers could be exposed to Valley Fever spores as fugitive dust is generated during construction. In order to mitigate potential risk, the proposed Project would provide training and personal protective respiratory equipment to construction workers and provide information to all construction personnel and visitors about Valley Fever. Therefore, the exposure to Valley Fever would be minimized. With the implementation of the mitigation measures, dust from the construction of the proposed project would not add significantly to the existing exposure level of people to this fungus, including construction workers, and impacts would be reduced to less than significant levels.
- **Potential Impacts from Asbestos.** Naturally occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. According to information provided by the Department of Conservation Division of Mines and Geology, the project site is not located in an area where naturally occurring asbestos is likely to be present (CDCDMG, 2025). Therefore, impacts associated with the exposure of construction workers and nearby sensitive receptors to asbestos would be less than significant.

- **Odor Impacts and Mitigation.** The proposed Project is not considered a source of objectionable odors or odorous compounds. Furthermore, there does not appear to be any significant source of objectionable odors in close proximity that may adversely impact the project site when it is in operation. As such, the proposed project would not be a source of any odorous compounds nor would it likely be impacted by any odorous source and is considered a no impact element.
- **Impacts to Ambient Air Quality.** Because the Project's refined modelled PM10 and PM2.5 are below the EKAPCD's significance levels for 24-hour and annual concentrations, the Project's contribution to potential violations of ambient air quality standards would be less than significant.
- **Impacts to Greenhouse Gases and Climate Change.** The Project would not result in the emissions of hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), the other gases identified as GHG in AB32. The proposed Project would be subject to any regulations developed under AB32 as determined by CARB. As demonstrated in Table 4-14 of the AQIA, the Project would emit less than EKAPCD's significance threshold of 25,000 MT per year. The proposed Project would therefore have a less than significant GHG impact.

Mitigation Measures: No separate environmental justice-specific mitigation measures are required. See Section 4.3 *Air Quality*, for applicable mitigation measures..

Level of Significance: Less than significant.

Noise

This impact evaluates whether the Project would generate noise impacts that would disproportionately affect environmental justice populations in the Inyokern area.

The Kern County General Plan Noise Element establishes an exterior noise level standard of 65 dB Ldn for residential uses and an interior standard of 45 dB Ldn for residences. The Kern County Code of Ordinances (Chapter 8.36) limits construction to the hours of 6:00 a.m. to 9:00 p.m. on weekdays and 8:00 a.m. to 9:00 p.m. on weekends when within 1,000 feet of a residence.

Construction

Construction of the Project would generate temporary noise from heavy equipment, truck traffic, and related site activity. The Acoustical Analysis prepared by WJV Acoustics, Inc. (WJVA Report No. 25-45, March 17, 2026) modeled construction noise using the FHWA Roadway Construction Noise Model and determined that peak construction noise levels would range from approximately 54 to 58 dB Leq at the closest residential land uses, which are located at distances of 1,000 feet or greater from the approximate center of the construction area. These levels are below the Federal Transit Administration construction noise threshold of 80 dB Leq for residential land uses.

Operation

Operation of the Project would generate ongoing noise from building systems, cooling equipment, electrical equipment, and routine vehicular activity. Operational noise was calculated at eight sensitive receptor locations (R-1 through R-8) including five residential, one church, and one school land use. Under worst-case conditions, with all mechanical equipment in simultaneous and constant operation, calculated project noise levels in terms of the Ldn ranged from 49 to 56 dB Ldn at all noise-sensitive land uses, remaining below the Kern County exterior noise level standard of 65 dB Ldn. Traffic noise modeling determined that Project-related traffic would not result in any measurable increase in noise exposure along W. Inyokern Road during either construction or operation. Based on those specific findings, the Project would not result in disproportionately high and adverse noise effects on environmental justice populations.

Implementation and verification for noise would occur through Kern County permitting, plan review, inspection, and enforcement mechanisms applicable to the Project's noise controls and the standards established in the Kern County General Plan Noise Element and Kern County Code of Ordinances Chapter 8.36.

Mitigation Measures: No separate environmental justice-specific mitigation measures are required. See Section 4.13, *Noise*, for applicable mitigation measures.

Level of Significance: Less than significant.

Transportation and Traffic

This impact evaluates whether Project traffic would disproportionately burden environmental justice populations in the Inyokern area.

Construction

Construction of the Project would generate temporary worker commute trips, truck trips, and delivery trips on local and regional roadways. The Trip Generation and Vehicle Miles Traveled Analysis prepared by Ruettggers & Schuler Civil Engineers/Provost & Pritchard (January 14, 2026) determines that during construction, an average daily workforce of approximately 200 personnel (with a carpool factor of 1.5 applied) would generate approximately 267 daily trips and 40 peak hour trips. Peak hour trip generation does not exceed the Kern County threshold of 50 trips in the peak hour that would require a level of service analysis.

Operation

Operation of the Project would generate routine employee, maintenance, and service trips. During operations, the Project is anticipated to generate 241 daily trips, with 23 AM peak hour trips and 14 PM peak hour trips. Peak hour trip generation does not exceed the Kern County threshold of 50 trips. The existing volume-to-capacity ratio on State Route 178 within the study area is 0.22, well below the 0.80 threshold for mitigation. The VMT analysis found a project VMT of 27.13, which is 30.37 percent below the regional VMT of 36.85 and below the OPR threshold of

significance of 31.32. Based on those findings, the Project would not result in disproportionately high and adverse transportation effects on a disadvantaged community or populations.

Implementation and verification for traffic-related controls would occur through the construction management, permitting, and agency oversight processes applicable to the underlying transportation section.

Mitigation Measures: No separate environmental justice-specific mitigation measures are required. See Section 4.16, *Transportation*, for applicable mitigation measures.

Level of Significance: Less than significant.

Aesthetics, Light, and Glare

This impact evaluates whether Project lighting and aesthetic changes would disproportionately affect environmental justice populations in the Inyokern area.

Construction

Construction would introduce temporary lighting for safety and security. Any nighttime construction lighting would be minimized, fully shielded, directed downward, and limited in duration through a separate construction lighting plan.

Operation

Operation of the Project would introduce permanent lighting for safety, security, and operations. Environmental justice concerns related to lighting may occur where offsite light spill or glare adversely affects nearby residences or community areas. The Project Site is surrounded predominantly by open, undeveloped lands, though residential development along Brown Road and commercial uses along State Route 178 exist in the vicinity and represent the sensitive receptors for lighting-related EJ evaluation.

The Conceptual Lighting Management Plan prepared by QK (March 2, 2026) establishes the lighting design framework for the Project in accordance with the Kern County General Plan Policies 47 and 48, Kern County Zoning Ordinance Chapter 19.80.030 Standard J, Kern County Dark Skies Ordinance (Chapter 19.81), and CEC SPPE Appendix B Section (g)(6)(D)(v). The lighting design employs a “normally dim + task-up” control strategy under which exterior lighting operates at a low, dimmed baseline during nighttime hours and temporarily increases only in localized areas when activity is detected. All exterior luminaires are full cutoff or fully shielded with no uplight, dimmable drivers, and warm correlated color temperatures in the 2700K to 3000K range consistent with dark-sky objectives. Exterior lighting mounting heights would comply with Kern County height limitations and airport compatibility requirements applicable to the Project’s location within Compatibility Zone C of the Kern County Airport Land Use Compatibility Plan, which restricts structure and object heights to 35 feet above ground level.

Construction of the Project would generally occur during daytime hours between 7 a.m. and 6 p.m. In the event that work is performed outside of this schedule during the evening or early morning,

construction crews would use minimal illumination in order to perform the work safely. All lighting would be directed downward and shielded to focus illumination on the desired work areas only, and to prevent light spillage onto adjacent properties.

Additionally, construction of the Project would not create a new source of substantial glare that would affect daytime views in the area. Impacts would be less than significant.

Potential operational impacts associated with new sources of lighting at the Project would be minimized through compliance with applicable development standards pertaining to lighting, including Chapter 19.81 (Dark Skies Ordinance), as required, to provide the minimum illumination needed to achieve safety and security objectives.

Therefore, implementation and compliance with applicable local development standards and regulations pertinent to lighting would minimize the potential for light trespass onto adjacent properties and roads, and impacts would be less than significant.

Based on the above discussed specific design measures and controls, the Project would not result in disproportionately high and adverse aesthetics, lighting, or glare effects on environmental justice populations.

Implementation and verification would occur through plan review, lighting-plan conformance, inspection, and any permitting requirements associated with final lighting design.

Mitigation Measures: No separate environmental justice-specific mitigation measures are required. See Section 4.1, *Aesthetics*, for applicable mitigation measures.

Level of Significance: Less than significant.

Water Supply, Wastewater, and Utilities

This impact evaluates whether Project utility demands would disproportionately affect environmental justice populations in the Inyokern area.

Construction and Operation

Construction and operation of the Project would require water, wastewater, electricity, solid waste, and other utility services. Utility-related environmental justice concerns can arise if the Project reduces service reliability, shifts costs to existing users, or creates infrastructure burdens that disproportionately affect nearby communities. The Project would contribute to utility service costs through one-time connection and capacity fees and ongoing commercial service charges at adopted rates. Utility service would be provided through applicable service provider requirements, connection conditions, adopted commercial rate structures, and Applicant-funded project-serving improvements.

Any infrastructure improvements necessary to serve the Project would be fully funded by the Applicant, thereby avoiding increased costs or reduced service levels for existing ratepayers. Infrastructure would be sized to meet project-serving demand only and would not create excess

capacity that could induce off-site growth. Further, although low-income homes are in the service area for water supply, any special district (such as the Inyokern Community Services District) providing water for the Project would receive additional property taxes from the Project that can be utilized to improve district services to those ratepayers. Based on that utility-service framework, the Project would not result in disproportionately high and adverse utility-related effects on a disadvantaged community or populations.

Implementation and verification would occur through service-provider requirements, connection conditions, standard permitting and inspection, and any service letters or utility approvals required for final filing.

Mitigation Measures: No separate environmental justice-specific mitigation measures are required. See Section 4.15, *Public Services*, for applicable mitigation measures.

Level of Significance: Less than significant.

Hazards and Hazardous Materials

This impact evaluates whether Project hazardous materials activities would disproportionately affect environmental justice populations in the Inyokern area.

Construction and Operation

Construction and operation of the Project would involve the transport, storage, use, and disposal of hazardous materials typical of industrial development and facility maintenance. Environmental justice concerns related to hazards may occur where Project activities create exposure pathways or increase emergency response burdens affecting nearby residents or sensitive receptors. Hazard controls for the Project would be implemented through standard regulatory compliance for handling, storage, spill response, and emergency planning, with implementation and verification occurring through permitting, inspections, and corrective-action processes applicable to the Project's hazardous materials requirements. These controls include applicable requirements for hazardous materials storage, spill prevention and response, emergency planning, permitting, inspection, and corrective action, as required by the responsible agencies. Any required controls or mitigation would be incorporated into construction and operations. Based on that hazards-control framework, the Project would not result in disproportionately high and adverse hazards-related effects on environmental justice populations.

Mitigation Measures: No separate environmental justice-specific mitigation measures are required. See Section 4.9, *Hazards and Hazardous Materials*, for applicable mitigation measures..

Level of Significance: Less than significant.

Public Services

This impact evaluates whether Project demands on public services would disproportionately affect environmental justice populations in the Inyokern area.

Construction and Operation

Construction and operation of the Project would result in temporary and ongoing demands on fire protection, law enforcement, and emergency medical response services. Public services may be an environmental justice issue if increased service demand reduces response availability or disproportionately burdens vulnerable populations. The Project would not introduce a residential population and would have a relatively limited permanent workforce, thereby minimizing incremental service demand. The Project would rely on code compliance, applicable service frameworks, project-serving improvements, and agency review processes to address service demand. This framework includes fire prevention planning, responder coordination, life-safety systems, controlled access, and project-funded fire-flow/access improvements, where required. Based on that framework, the Project would not result in disproportionately high and adverse public service effects on environmental justice populations.

Implementation and verification would occur through plan review, code compliance, inspection, and agency oversight processes applicable to the underlying public-services requirements.

As discussed in Section 4.15, *Public Services*, the following findings support the conclusion that impacts to public services would be less than significant:

Fire Protection and Emergency Medical Services. Construction activities could introduce fire risks such as sparks, hot work, and fuel to the site. Construction would also generate truck and employee traffic along haul routes, which could temporarily increase demand for fire protection response. Service demands per temporary employee are less than service demands per resident; nevertheless, the presence of construction personnel would result in a temporary increased demand for fire protection and emergency medical services. The Project's construction workforce is estimated to peak at approximately 592 workers and average approximately 300 workers over the 48-month construction period. Upon completion, the Project would employ approximately 30 to 60 permanent employees at the facility, supplemented by contract service personnel. Following implementation of Mitigation Measure MM 4.15-1 and MM 4.15-2, impacts to fire protection and emergency medical services during Project construction would be less than significant.

Law Enforcement Protection. The Kern County Sheriff Office (KCSO) provides primary law enforcement protection services for the Project site and surrounding areas through the Ridgecrest Substation, located approximately 15 miles southeast of the Project site. During construction, the Project could temporarily increase service needs from KCSO. Operations and maintenance workers would generate minor traffic volumes and would not be expected to adversely affect KCSO response times or CHP patrol operations.

With the implementation of MM 4.15-2, new or physically altered KCSO facilities would not be required to accommodate the Project during construction or operations. Impacts to law enforcement protection services during construction would be less than significant.

Schools, Parks, and Other Public Facilities. The Project would require a peak construction workforce of approximately 592 workers and an average workforce of approximately 300 workers over the 48-month construction period. Most construction workers are expected to reside in the

Indian Wells Valley region and commute to the Project site daily, with household relocation estimated at 0 to 2 percent of the peak workforce. The temporary nature of construction employment and the reliance on daily commuting rather than household relocation means that the Project would not generate a substantial permanent increase in local population that would adversely affect school enrollment, park facilities, library services, or other public facilities such as post offices or courthouses.

Upon completion, the Project would employ approximately 30 to 60 permanent employees. This small permanent operations workforce, combined with the absence of residential uses, means that the Project would not generate measurable enrollment increases at SSUSD schools or meaningful additional demand on parks, libraries, or other public facilities. The Project would pay applicable statutory school facilities fees at the time of building permit issuance as required by California Education Code Section 17620, offsetting any incremental impact on school facilities.

No new or physically altered schools, parks, libraries, or other public facilities would be required to accommodate the Project, therefore impacts to schools, parks, and other public facilities would be less than significant.

Mitigation Measures: No separate environmental justice-specific mitigation measures are required. See Section 4.15, *Public Services*, for applicable mitigation measures.

Level of Significance: Less than significant.

Table 4.19-A - CEC SPPE Appendix B Section (g)(7) Compliance Cross-Reference

Ref.	Appendix B Requirement	Section / Table	Status
(A) Existing Conditions / Socioeconomic Setting			
(g)(7)(A)	Description of existing socioeconomic conditions, employment, economic activity, and community character in the project area	Section 4.19.1 Environmental Setting	✓ Addressed
(g)(7)(A)	CalEnviroScreen 4.0 screening and SB 535 disadvantaged community designation status	Section 4.19.3 Existing Conditions	✓ Addressed
(g)(7)(A)	Community demographics, population, health indicators, and vulnerability factors	Section 4.19.1 Environmental Setting	✓ Addressed

(B) Project Impacts — Direct, Indirect, and Cumulative			
(g)(7)(B)(i)	Effects on local and regional employment during construction and operation	Section 4.19.5.2 Socioeconomic Impacts	✓ Addressed
(g)(7)(B)(ii)	Effects on local tax revenues and public services	Section 4.19.4.9 Public Services	✓ Addressed
(g)(7)(B)(iii)	Effects on property values	Section 4.19.5 (CEC App. B Supplement)	✓ Addressed
(g)(7)(B)(iv)	Effects on the character of communities in the project vicinity	Section 4.19.1; Section 4.19.4.6 Aesthetics	✓ Addressed
(g)(7)(B)(v) — Air Quality	Environmental justice — disproportionately high and adverse effects on EJ populations: air quality pathway	Section 4.19.4.3 Air Quality; Table 4.19-1	✓ Addressed
(g)(7)(B)(v) — Noise	Environmental justice — disproportionately high and adverse effects on EJ populations: noise pathway	Section 4.19.4.4 Noise; Table 4.19-1	✓ Addressed
(g)(7)(B)(v) — Transportation	Environmental justice — disproportionately high and adverse effects on EJ populations: transportation pathway	Section 4.19.4.5 Transportation; Table 4.19-1	✓ Addressed
(g)(7)(B)(v) — Aesthetics	Environmental justice — disproportionately high and adverse effects on EJ populations: lighting/glare pathway	Section 4.19.4.6 Aesthetics; Table 4.19-1	✓ Addressed
(g)(7)(B)(v) — Utilities	Environmental justice — disproportionately high and adverse	Section 4.19.4.7 Utilities; Table 4.19-1	✓ Addressed

	effects on EJ populations: utilities pathway		
(g)(7)(B)(v) — Hazards	Environmental justice — disproportionately high and adverse effects on EJ populations: hazards pathway	Section 4.19.4.8 Hazards; Table 4.19-1	✓ Addressed
(g)(7)(B)(v) — Public Services	Environmental justice — disproportionately high and adverse effects on EJ populations: public services pathway	Section 4.19.4.9 Public Services; Table 4.19-1	✓ Addressed
(g)(7)(B)(v) — Cumulative	Cumulative EJ impacts — disproportionate burdens on EJ populations from combined project and other development	Section 4.19.6 Cumulative Setting	✓ Addressed
(C–E) Mitigation, Monitoring, and Cumulative Setting			
(g)(7)(C)	Measures to avoid or mitigate adverse socioeconomic impacts and evaluation of their effectiveness	Section 4.19.4 per pathway; Section 4.19.5	✓ Addressed
(g)(7)(D)	Monitoring plans to verify effectiveness of mitigation measures	Section 4.19.5.3 Monitoring	✓ Addressed
(g)(7)(E)	Approach and reference materials used to develop cumulative setting (general plans, adopted plans)	Section 4.19.6 Cumulative Setting; Section 4.19.2 Regulatory Framework	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(7). All criteria are addressed in this chapter; full technical disclosure is provided in the supporting studies filed as exhibits to this Application.

4.19.5. Mitigation Measures

No separate environmental justice-specific mitigation measures are identified. Environmental justice effects are derivative of the physical environmental and public health pathways addressed in the Project’s technical sections. The mitigation, compliance requirements, design controls, and

standard implementation measures identified in the underlying air quality, noise, traffic, lighting, utilities, hazards, and public services analyses are the measures relied upon to avoid or reduce the potential for disproportionately high and adverse effects on environmental justice populations.

4.19.6 CEC SPPE Appendix B — Additional Environmental Justice Disclosure Requirements

This section provides the additional environmental justice disclosure information required by CEC SPPE Appendix B, Section (g)(7). This information supplements the CEQA impact analysis provided in Sections 4.19.1 through 4.19.4 above. Appendix B, Section (g)(7), requires a description of existing socioeconomic conditions; a description of direct, indirect, and cumulative socioeconomic impacts; a description of mitigation measures and their effectiveness; monitoring plans; and the approach used to develop the cumulative setting. Each of these requirements is addressed below.

Existing Socioeconomic Conditions — Appendix B (g)(7)(A)

As described in Sections 4.19.1 and 4.19.3, the Project Site is located in the Inyokern community of unincorporated Kern County. Inyokern is a small rural community with a population of approximately 988 residents. The Inyokern CDP is not designated as a disadvantaged community under CalEnviroScreen 4.0 (percentile score of 66) or SB 535. The community has a predominantly White demographic (approximately 67 percent) with an Hispanic/Latino population of approximately 16 percent. Health sensitivity indicators include an asthma percentile of 79 and a cardiovascular disease percentile of 96 under CalEnviroScreen 4.0, indicating elevated health sensitivity relative to other California census tracts. The local economy is primarily supported by Kern County government, military activity associated with Naval Air Weapons Station China Lake, and small commercial uses. Employment and economic conditions in the region are further described in the underlying socioeconomic materials on file with this Application.

Socioeconomic Impacts — Appendix B (g)(7)(B)

The Project is expected to provide positive socioeconomic benefits during both construction and operation, including temporary construction employment, permanent operational employment, and increased property tax revenues to Kern County and applicable special districts. The Project would not displace existing businesses, residents, or community uses. The evaluation of disproportionate environmental justice impacts across the seven technical pathways is provided in Section 4.19.4 and summarized in Table 4.19-1. For all evaluated pathways, the analysis concludes that impacts would be less than significant and would not disproportionately affect environmental justice populations.

Mitigation Effectiveness and Monitoring — Appendix B (g)(7)(C) and (D)

The effectiveness of the measures relied upon for each EJ pathway is reflected in the technical findings already in the submitted record. The Air Quality Impact Analysis (QK, February 2026) concludes that operational emissions would not exceed applicable significance thresholds and that

construction-related controls are applied through standard mitigation and dust-control requirements.

The Acoustical Analysis (WJVA Report No. 25-45) finds that construction and operational noise levels would remain below applicable significance thresholds at all nearby sensitive receptors.

The Trip Generation and VMT Analysis (Ruetters & Schuler/Provost & Pritchard) finds that Project traffic would not exceed Kern County peak-hour thresholds in either phase and that Project VMT is below the OPR significance threshold.

The Conceptual Lighting Management Plan (QK) establishes a controls-first, full cutoff lighting design that minimizes offsite light spill and glare.

Implementation and verification would occur through the monitoring and compliance mechanisms applicable to the underlying technical areas, including plan review, permitting, enforceable conditions, inspection, code compliance, agency oversight, and complaint-response procedures, as applicable.

The mechanisms that address EJ-relevant pathways in the submitted record include:

- EKAPCD permit conditions and inspection applicable to air quality controls identified in Section 4.3; noise compliance verification and enforcement mechanisms applicable to the Kern County General Plan Noise Element standard of 65 dB Ldn and the construction hour restrictions of Chapter 8.36, as evaluated in the Acoustical Analysis (WJVA Report No. 25-45);
- construction management oversight and agency review applicable to the traffic controls documented in the Trip Generation and VMT Analysis (Ruetters & Schuler/Provost & Pritchard);
- lighting plan conformance review and inspection applicable to the Kern County Dark Skies Ordinance (Chapter 19.81) and Zoning Ordinance Chapter 19.80.030 Standard J requirements, as addressed in the Conceptual Lighting Management Plan (QK);
- service-provider permitting, connection conditions, and inspection applicable to utility and water/wastewater infrastructure;
- permitting, inspection, and corrective-action processes applicable to hazardous materials handling and storage;
- and plan review, code compliance, and agency oversight applicable to fire protection, law enforcement, and emergency services.

Cumulative Setting Reference Materials — Appendix B (g)(7)(E)

The approach used to develop the cumulative setting for this environmental justice review is described in Section 4.19.6. Reference materials used for the cumulative setting include CalEnviroScreen 4.0 data and SB 535 screening discussed in Section 4.19.1, the Site Plan (Appendix A.1), the Kern County General Plan, the Inyokern Specific Plan, and the applicable

technical sections of the Application. These materials are consistent with the general plans and adopted plans referenced in Appendix B (g)(7)(E).

4.19.7 Cumulative Setting, Impacts and Mitigation Measures

Cumulative environmental justice impacts occur when the Project's incremental effects, combined with existing conditions and other past, present, and reasonably foreseeable future projects, create a substantial adverse burden that is disproportionately experienced by environmental justice populations. The cumulative analysis area for this section encompasses the Inyokern community and Indian Wells Valley, consistent with the geographic scope used in the underlying technical sections. See Appendix N.3 (Cumulative Projects and Cumulative Impacts Analysis) for the full list of past, present, and reasonably foreseeable projects considered in the cumulative environmental justice analysis.

Consistent with Appendix B, the cumulative setting for this section is based on existing community conditions in Inyokern, the surrounding land use and infrastructure context, and the cumulative-setting approaches described in the underlying technical sections relied on by this EJ review. Reference materials used for this section include the CalEnviroScreen 4.0 data and SB 535 screening discussed in Section 4.19.1, the Site Plan (Appendix A.1), and the applicable technical sections of the Application.

As discussed above, the Project's construction, operation, and maintenance is not expected to create disproportionately high and adverse cumulative effects on the local population provided the applicable technical-area controls, mitigation, and compliance requirements are implemented.

Other projects in the Inyokern area would be subject to the same CEQA review requirements and applicable codes, including the Kern County General Plan and Inyokern Specific Plan.

The Project's design, operational characteristics, and compliance with applicable requirements are consistent with the goals and policies of both plans.

4.19.8 Conclusion

The Project is not located within a community identified by CalEnviroScreen 4.0 or SB 535 as a disadvantaged community. However, because portions of the Inyokern community may be sensitive to environmental stressors based on the health indicators discussed in Section 4.19.1, the Project has been evaluated to determine whether construction, operation, and maintenance would result in disproportionately high and adverse effects on environmental justice populations.

Based on the environmental justice setting, the technical-area pathways identified in this section, and the technical conclusions, controls, and implementation mechanisms reflected in the Project record, the Project would not result in disproportionately high and adverse direct, indirect, or cumulative effects on environmental justice populations. The technical studies submitted with this Application confirm that construction and operational impacts in all evaluated pathways would remain below applicable significance thresholds with required controls and mitigation

incorporated into construction and operations. The Project would not result in disproportionately high and adverse effects on environmental justice populations.

Mitigation Measures: No environmental justice-specific mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Table 4.19-1 - Environmental Justice Technical Area Summary

Technical Area	Primary EJ Pathway	Underlying Technical Source	Impact Conclusion	Disproportionately High and Adverse Effect on EJ Populations
Air Quality	Construction equipment emissions, worker/vendor/delivery trips, fugitive dust, operational trips and maintenance activity	Section 4.3, Air Quality; Air Quality Impact Analysis (Appendix F.1)	Construction and operational air quality impacts would be less than significant with applicable controls and compliance measures.	No
Noise	Temporary construction noise, operational equipment noise, routine vehicular activity	Acoustical Analysis (Appendix G.1)	Construction and operational noise would remain below applicable significance thresholds at nearby sensitive receptors.	No
Transportation and Traffic	Construction worker and truck trips, delivery trips, operational employee/service trips	Trip Generation and Vehicle Miles Traveled Analysis (Appendix H.1)	Project traffic would not exceed applicable Kern County peak-hour thresholds, and Project VMT would remain below the applicable significance threshold.	No

Aesthetics, Light, and Glare	Temporary construction lighting, permanent security and operational lighting, offsite light spill and glare	Conceptual Management (Appendix I.1) Lighting Plan	Lighting controls and design standards would minimize offsite light spill and glare, and impacts would be less than significant.	No
Water Supply, Wastewater, and Utilities	Utility demand, service reliability, infrastructure improvements, potential ratepayer burden	Utilities/water/wastewater sections; supporting utility service materials	Utility service would be provided through applicable service-provider requirements, connection conditions, adopted rates, and Applicant-funded project-serving improvements.	No
Hazards and Hazardous Materials	Transport, storage, use, spill response, emergency planning	Hazards and hazardous materials section; supporting hazardous materials compliance framework	Hazard controls, permitting, inspection, spill response, and emergency planning requirements would avoid disproportionately high and adverse hazards effects.	No
Public Services	Fire protection, law enforcement, emergency medical response, emergency access and life-safety demands	Public services section; supporting public service coordination and code compliance materials	The Project would not introduce a residential population, would have a limited permanent workforce, and would rely on code compliance, responder coordination, and project-serving	No

			improvements where required.	

Source: Project technical studies and analyses filed as supporting exhibits to this Application.

4.20 WILDFIRE

Introduction

This section of the Application describes the affected environment and regulatory setting for wildfire hazards associated with the Project. This section also evaluates the potential wildfire-related impacts associated with construction, operation, and maintenance of the Project and identifies Project design features, compliance measures, and fire protection planning that would avoid or reduce wildfire-related impacts, where applicable.

The proposed Project's potential wildfire-related impacts have been evaluated using relevant information from the Project Description, Site Plan (Appendix A.1), the Generator Data and Specifications (Appendix A.3), the Wildfire Assessment (Appendix D.2), the SRA, LRA, and FHSZ mapping prepared for the Project, the Biological Resources Report (Appendix D.1), the Hydrology Study (Appendix E.1), Air Quality Impact Analysis (Appendix F.1), the Soil and Geology Report (Appendix K.1), and other published resources.

This Wildfire Assessment also addresses the applicable wildfire information requirements in California Energy Commission (CEC) Appendix B for a Small Power Plant Exemption (SPPE) application. The CEC SPPE Appendix B supplemental disclosure requirements for wildfire are addressed in Section 4.20.5 of this chapter.

CEC SPPE Appendix B — Section (g)(19) Applicability

Section (g)(19) of Appendix B (CCR Title 20, Division 2, Chapter 5) requires the applicant to provide: (A) a map showing State Responsibility Areas (SRAs) relative to the proposed project; (B) a map showing state Fire Hazard Severity Zones (FHSZs) relative to the proposed project; and (C) if the project would be in the vicinity of an SRA or a Very High Fire Hazard Severity Zone (VHFHSZ), additional discussion of: (i) local emergency response or evacuation plans; (ii) onsite containment of potential project pollutants during a wildfire event; (iii) infrastructure that may exacerbate wildfire risk; and (iv) people or structures downslope or downstream that could be affected by flooding or landslides resulting from runoff, post-fire slope instability, or drainage changes.

All Section (g)(19) requirements are addressed in this chapter. The CEQA analysis is provided in Sections 4.20.1–4.20.4. The Appendix B supplemental disclosure is provided in Section 4.20.5. A cross-reference table mapping each Appendix B criterion to its location in this document is provided in Table 4.20-A, immediately preceding Section 4.20.4.

4.20.1 Environmental Setting

Regional Setting

The Project Site is located within the western Mojave Desert in the Indian Wells Valley near the community of Inyokern in unincorporated Kern County. The western Mojave Desert is characterized by arid climatic conditions, generally flat valley floors, sparse desert vegetation, and

surrounding mountain ranges and foothill areas that contain higher wildfire hazard designations than the valley floor areas.

CAL FIRE Mapping

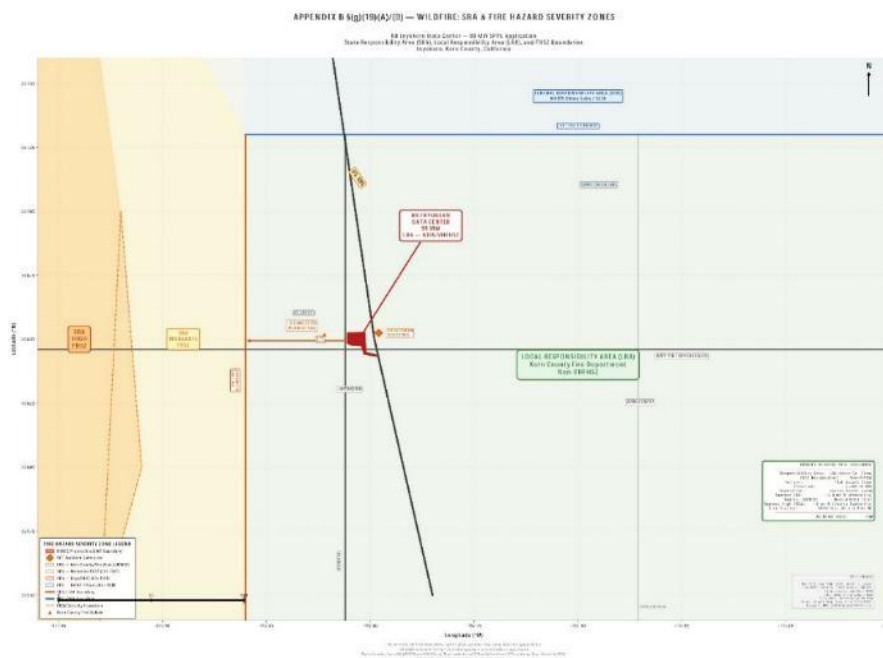
The California Department of Forestry and Fire Protection (CAL FIRE) maps fire hazard severity zones (FHSZs), based on factors such fuel, slope, and fire weather to identify the degree of fire hazard throughout California (i.e., moderate, high, or very high). While FHSZs do not predict when or where a wildfire will occur, they do identify areas where wildfire hazards could be more severe and therefore are of greater concern.

According to the CAL FIRE, Kern County Fire Hazards Severity Zone Maps for the Local Responsible Areas, a majority of the Project Site is classified as Local Responsibility Area (LRA) (**Figure WF-001**), *Fire Hazard Severity Zones for Local Responsibility Areas*).

The Project Site is outside of areas identified by CAL FIRE as having substantial or very high fire risk. Moderate zones are typically wildland supporting areas of low fire frequency and relatively modest fire behavior. The project site is not within a State Responsibility Area (SRA).

The closest SRA is west of the Project Site, and is categorized as SRA Moderate (**Figure WF-001**), *Fire Hazard Severity Zones for State Responsibility Areas*).

Figure WF-001 (also submitted as Appendix B §(g)(19)(A)/(B) Wildfire: SRA & Fire Hazard Severity Zones)



Source: **SRA FHSZ:** CAL FIRE FHSZ Maps, effective April 1, 2024, **LRA FHSZ:** Kern County 2025 FHSZ Update (SB 63) — sourced from kernplanning.com/fhsz-2025, **FRA:** NAWS China Lake / Bureau of Land Management. Note that LRA zones are based on the Kern County 2025 FHSZ Update (SB 63), while the SRA zones are based on CAL FIRE FHSZ mapping effective April 1, 2024.

Fire History

Fire history information can provide an understanding of fire frequency, fire type, most vulnerable project areas, and significant ignition sources. Fire history represented in this section uses CAL FIRE's California Statewide Fire Map that shows fires from 1878 to 2024 (CAL FIRE, 2024) and CAL FIRE's Fire and Resource Assessment Program (FRAP) Fire Perimeters: Wildfires 1950-2024 map (CAL FIRE, 2024). Based on a review of these maps, no fires in the recorded history have burned across the Project Site.

Local Setting

The Project Site primarily consists of sparse desert vegetation surrounded by major roadways. Existing development in the project vicinity includes wastewater treatment plant, rural access roads, scattered rural residences, a gasoline station convenience store, retail hardware store and storage yard, a mobile home and RV park, and the Inyokern Airport, RB Solar Project, and a 4.2 acre borrow pit; otherwise open space is prevalent in the vicinity.

As shown in (**Figure WF-001**) of this section, the nearest State Responsibility Area (SRA) is located ~3.0 miles west of the Project Site, and the nearest High Fire Hazard Severity Zone is located ~5 miles west of the Project Site. No Very High Fire Hazard Severity Zone is identified within 10 miles of the Project Site.

The Project Site is located in a Local Responsibility Area (LRA) served by the Kern County Fire Department.

Topography

The topography of the Project Site and surrounding area are generally flat, although the terrain is slightly more variable where anthropogenic disturbances have occurred (i.e., OHV roads) or have influenced drainage patterns. The topography gently slopes from south to north, with an elevation that ranges between 2,435 and 2,416 feet above mean sea level (AMSL). The foothills of the Sierra Nevada Mountain Range are ~4 miles west of the Project Site, while the El Paso Mountain Range is ~6 miles to the south.

Climate

The region in which the Project Site is located is characterized by a typical desert climate, with hot, dry, windy summers and mild, dry winters. Average high temperatures range from 59.7°F in December to 102.7°F in July, and it is not uncommon for temperatures to exceed 100.0°F during the summer (WRCC 2025). Average low temperatures range from 30.2°F in December to 66.2°F in July. Precipitation events are variable from year to year, with an average of 4.17 inches of rain falling mainly between December and March, although the region is known to experience sudden thunderstorms in the summer months.

Vegetation

Vegetation present in the Project Site consists of Desert Scrub and Alkali Desert Scrub. The most prevalent habitat type within the Project Site is Desert Scrub, which covers approximately two-thirds of the Project Site. A complete list of plant species observed during the reconnaissance surveys is included in Appendix D of the Biological Resources Report.

Desert Scrub and Alkali Desert Scrub vegetation types are characterized by sparse native perennial shrubs, including creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*), with largely open interspaces between shrubs. Historically, fire has been infrequent in these habitats due to discontinuous native fuel loads; fire return intervals in Mojave Desert creosote scrub ecosystems are estimated to have historically exceeded 100 years under natural conditions (Brooks and Minnich, 2006; Brooks et al., 2006). Native desert scrub species generally lack traits associated with fire resilience, and fire can result in long-lasting alterations to vegetation composition (Brooks and Esque, 2002). Contemporary fire risk in these habitats is primarily driven by the invasion of non-native annual grasses, particularly red brome (*Bromus rubens*) and Arabian schismus (*Schismus arabicus*), which produce continuous fine fuelbeds in the interspaces between native shrubs following years of above-average rainfall (Brooks, 1999; Moloney et al., 2019). Research using remote sensing and field sampling in the Mojave Desert has demonstrated that fire risk is most strongly correlated with fuel loads, ignition potential, and climate variables, and is substantially elevated in areas with high non-native grass cover (Van Linn et al., 2013). At lower elevations where background cover of native perennial fuels is already very low, the effects of ephemeral non-native grass fuels are generally muted compared to middle-elevation shrublands (Brooks et al., 2006). The Project Site is situated on flat valley floor within a low-elevation Desert Scrub and Alkali Desert Scrub setting, which corresponds to the lower fire risk zone identified in the peer-reviewed literature for Mojave Desert landscapes.

Hydrology

The Project Site is in the Grapevine Canyon watershed of the South Lahontan Hydrologic Region (HUC 12-180902050704; USGS 2025). Drainage for most of the watershed in the region is internal, which accounts for the presence of many dry lakebeds or playas in the region. Most of the perennial rivers are in the northern portion of this hydrologic region. These include the Owens River and Rush Creek in the north. In the south, the Mojave and Amargosa Rivers are present but typically dry for most of the year.

The National Hydrography Dataset (NHD) and the National Wetland Inventory (NWI) databases did not identify any water feature present in the Project Site. During the survey, one water feature was identified in the Project Site near the subtransmission line route (Figure 4-1). The water feature did not contain any water, but indicators of water flow, including soil cracks, bed and bank, and a change in vegetation type, were present. The subtransmission line route would not cross or impact the water feature.

Thirteen features were identified within one mile north of the Project site. Twelve of the thirteen features are existing “freshwater ponds” (i.e., PUSK or PUBK) located on the Inyokern Waste

Water Treatment Plant operated and maintained by the Inyokern Community Services District. The remaining feature is an unnamed intermittent stream that is bisected by State Route 395 and the Inyokern Waste Water Treatment Plant. None of these features would be crossed or impacted by the Project.

The Project Site is almost entirely in an area of one percent Annual Chance Flood Hazard as designated by FEMA. According to the FEMA Flood Insurance Rate Map (FIRM) for Kern County, California (06029C1018E eff. 9/26/2008), the Project Site is located within FEMA Flood Zone A (unshaded), which designates areas outside the 0.2-percent-annual-chance (500-year) floodplain with minimal flood hazard. No portion of the Project Site is mapped within a Special Flood Hazard Area (Zone A or Zone AE) or an area of Undetermined Flood Hazard (Zone D). (FEMA, FIRM Panel for Kern County, California, Unincorporated Areas.)

4.20.2 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area.

State

2016 California Fire Code

The 2016 California Fire Code (Title 24, Part 9, of the California Code of Regulations) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety for and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California. Chapter 6 (Building Services and Systems) of the Code focuses on building systems and services as they relate to potential safety hazards and when and how they should be installed. Building services and systems are addressed include emergency and standby power systems, electrical equipment, wiring and hazards, and stationary storage battery systems. Chapter 33 (Fire Safety During Construction and Demolition) of the Code outlines general fire safety precautions to maintain required levels of fire protection, limit fire spread, establish the appropriate operation of equipment and promote prompt response to fire emergencies. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire service features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.

2016 California Building Code, Chapter 7A

Chapter 7 of the 2016 California Building Code details the materials, systems, and/or assemblies used in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area. A Wildland-Urban Interface Area is defined in Section 702A as a geographical area identified by the state as a “fire hazard severity zone” in accordance with the

Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires. The building code details the materials, systems and assemblies used for structural fire resistance and fire-resistance-rated construction separation of adjacent spaces to safeguard against the spread of fire and smoke within a building and the spread of fire to or from buildings.

Public Resources Code 4291-4299

California Public Resources Code Sections 4291–4299 et seq. requires that brush, flammable vegetation, or combustible growth within 100 feet of buildings be maintained. Vegetation that is more than 30 feet from the building, less than 18 inches high, and important for soil stability, may be maintained; as may single specimens of trees or other vegetation that is maintained so as to manage fuels and not form a means of rapid fire transmission from other nearby vegetation to a structure. Additionally, the Public Resources Code outlines infraction fees, certification, and compliance procedures applicable with state and local building standards, including those described in subdivision (b) of Section 51189 of the Government Code.

Local

Kern County General Plan (Chapter 4: Safety Element, 4.6 Wildland and Urban Fire)

- Policy 1: Require discretionary projects to assess impacts on emergency services and facilities.
- Policy 4: Ensure that new development of properties have sufficient access for emergency vehicles and for the evacuation of residents.
- Policy 6: All discretionary projects shall comply with the adopted Fire Code and the requirements of the Fire Department.
- Measure A: Require that all development comply with the requirements of the Kern County Fire Department or other appropriate agency regarding access, fire flows, and fire protection facilities.

Inyokern Specific Plan

The entire Project is subject to the provisions of the Inyokern Specific Plan. The Inyokern Specific Plan contains goals, policies, and standards that are compatible with those in the Kern County General Plan but are unique to the specific needs of the Inyokern Area. There are no wildfire-related policies and measures contained in the Inyokern Specific Plan that are applicable to the Project. All policies, goals, and implementation measures in the Kern County General Plan and the Inyokern Specific Plan are incorporated by reference.

Kern County General Plan — Safety Element (Chapter 4)

The following goals, policies, and implementation measures from the Kern County General Plan Safety Element (Chapter 4) are applicable to the Project:

- Goal 1: Minimize injuries and loss of life and reduce property damage.
- Goal 2: Reduce economic and social disruption resulting from earthquakes, fire, flooding, and other geologic hazards by assuring the continuity of vital emergency public services and functions.
- Goal 3: Assist in the allocation of public resources in Kern County to develop information regarding geologic, fire, and flood safety hazards and to develop a systematic approach toward the protection of public health, safety, and welfare from such hazards.
- Goal 4: Create an awareness of the residents in Kern County through the dissemination of information about geologic, fire, and flood safety hazards.
- Goal 5: Ensure the availability and effective response of emergency services following a catastrophic event.
- Goal 6: Prepare the County for effective response to, and rapid beneficial recovery from the occurrence of a catastrophic event.
- Goal 7: Ensure that adequate emergency services and facilities are available to the residents of Kern County through the coordination of planning and development of emergency facilities and services.
- Goal 8: Reduce the public's exposure to fire, explosion, blowout, and other hazards associated with the accidental release of crude oil, natural gas, and hydrogen sulfide gas.

General Plan General Policies and Implementation Measures

- Policy 1: That the County's program of identification, mapping, and evaluating the geologic, fire, flood safety hazard areas, and significant concentrations of hydrogen sulfide in oilfield areas, presently under way by various County departments, be continued.
- Policy 2: Those hazardous areas, identified as unsuitable for human occupancy, are guided toward open space uses, such as agriculture, wildlife habitat, and limited recreation.
- Policy 3: That the County government encourage public support of local, State, and federal research programs on geologic, fire, flood hazards, valley fever, plague, and other studies so that acceptable risk may be continually reevaluated and kept current with contemporary values.
- Policy 4: The County shall encourage extra precautions be taken for the design of significant lifeline installations, such as highways, utilities, and petrochemical pipelines.
- Policy 5: The adopted Kern County, California Multi-Hazard Mitigation Plan is incorporated by reference. This multi-jurisdictional plan, approved in compliance with the

Disaster Mitigation Act of 2000, provides long-term planning to reduce the impacts of future disasters.

Fire Protection Policies

- Policy 1: Require discretionary projects to assess impacts on emergency services and facilities.
- Policy 2: The County will encourage the promotion of public education about fire safety at home and in the work place.
- Policy 3: The County will encourage the promotion of fire prevention methods to reduce service protection costs and costs to taxpayers.
- Policy 4: Ensure that new development of properties have sufficient access for emergency vehicles and for the evacuation of residents.
- Policy 5: Require that all roads in wildland fire areas are well marked, and that homes have addresses prominently displayed.
- Policy 6: All discretionary projects shall comply with the adopted Fire Code and the requirements of the Fire Department.
- Measure A: Require that all development comply with the requirements of the Kern County Fire Department or other appropriate agency regarding access, fire flows, and fire protection facilities.
- Measure B: The provision of an adequate water supply for fire fighting purposes should be encouraged for all housing areas where an inadequate supply now exists.

Chapter 17.32 of the County Municipal Code details the Kern County Fire Code, which is an adoption of the 2016 California Fire Code with some amendments.

Kern County Fire Department Wildland Fire Management Plan

The KCFD Wildland Fire Management Plan adopted in 2009 assesses the wildland fire situation throughout the SRA within the County. The Plan includes stakeholder contributions and priorities, and identifies strategic targets for pre-fire solutions as defined by the people who live and work within the local fire problem. The plan systematically assesses the existing levels of wildland protection services and identifies high-risk and high-value areas, which are potential locations for costly and damaging wildfires. The plan also ranks the areas in terms of priority needs and prescribes what can be done to reduce future costs and losses. The Project Site is located within a moderate FHSZ (KCFD, 2009).

Kern County Fire Code

Kern County Fire Department Unit Strategic Fire Plan

The KCFD Unit Strategic Fire Plan, adopted in March of 2018 is the most current document that assesses the wildland fire situation throughout the SRA within the County. Similar to other plans, this document includes stakeholder contributions and priorities and identifies strategic targets for pre-fire solutions as defined by the people who live and work within the local fire problem. The plan provides for a comprehensive analysis of fire hazards, assets at risk, and level of services to systematically assess the existing levels of wildland protection services and identifies high-risk and high-value areas that are potential locations for costly and damaging wildfires. Additionally, the plan provides an annual report of unit accomplishments.

According to the plan, 69 percent of Kern County areas are within a SRA. The County is broken up into six different fuel management areas, Tehachapi, Western Kern, Northern Kern, Mt. Pinos Communities, Kern River Valley, and Valley. The Project Site is located within Battalion 1 (Tehachapi) which is within a moderate FHSZ within the Tehachapi fire plan management area (KCFD, 2018b).

Fire Prevention Standard No. 503-507 Solar Panels

In respect to the proposed rooftop and carport solar PV panels, the Kern County Fire Department Fire Prevention Division adopted Standard No. 503-507 Solar Panels (Ground Mounted, Commercial & Residential) on March 27, 2019. The standard is implemented in accordance with the 2016 CFC and Kern County Ordinance and is an official interpretation of the Kern County Fire Marshal's Office. The standard outlines installation requirements for photovoltaic ground-mounted and roof-mounted solar panels. The proposed Project would mount carport PV systems for the modules on steel support posts that would be pile driven into the ground and would therefore comply with the ground mounted requirements of this fire prevention standard. Ground mounted solar panel requirements of this standard include water supply, clearance and combustibles, stationary storage battery/energy storage systems, clean agent system permits, fire extinguisher placement, and emergency vehicle access (KCFD, 2019c).

4.20.3 Impacts and Mitigation Measures

As shown on the wildfire hazard mapping prepared for the Project, the Project Site is located in an LRA classified as non-VHFHSZ, and the nearest SRA is ~3.0 miles west of the Project Site. The term "in the vicinity of" as used in SCW SPPE Appendix B §(g)(19)(C) has not been defined by CEC regulation, staff guidance, or published SPPE decision. The Applicant's position is that the Project is not located "in the vicinity of" an SRA or VHFHSZ, based on the ~3.0-mile separation between the Project Site and the nearest SRA, the absence of any VHFHSZ within 10 miles of the Project Site, and the Project's LRA Non-VHFHSZ designation. Nonetheless, the information specified in SCE SPPE Appendix B §(g)(19)(C)(i) through (iv) is provided below for completeness and to facilitate CEC staff review. Wildfire impacts are also evaluated using the CEQA Guidelines Appendix G wildfire checklist criteria.

Methodology

The proposed Project's potential wildfire-related impacts have been evaluated using relevant information from the Site Plan (Appendix A.1), the Generator Data and Specifications (Appendix A.3), the Wildfire Assessment (Appendix D.2), the SRA, LRA, and FHSZ mapping prepared for the Project, the Biological Resources Report (Appendix D.1), the Hydrology Study (Appendix E.1), Air Quality Impact Analysis (Appendix F.1), the Soil and Geology Report (Appendix K.1), and other published resources.

Wildfire impacts are considered on the basis of: (1) offsite wildland fires that could result due to the proposed Project; and (2) onsite generated combustion that could affect surrounding areas. Using the aforementioned resources and professional judgment, impacts were analyzed according to the CEQA significance criteria described below.

Thresholds of Significance

The Kern County CEQA Implementation Document and the CEQA Guidelines Appendix G Environmental Checklist identify the following criteria to determine if a project could have a significant adverse effect related to wildfire. A proposed project would have a significant impact related to wildfire if it would:

- (a) Substantially impair an adopted emergency response plan or emergency evacuation plan;
- (b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants or the public to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- (c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate the risk of wildfire or result in temporary or ongoing impacts to the environment;
- (d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes; or
- (e) For a project located in or near an SRA or VHFHSZ, expose people or structures to significant risk of loss, injury, or death involving wildland fires.

Project Impacts

Impact 4.20-1: Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan.

The applicable local emergency management framework for the Project area consists of the Kern County Emergency Operations Plan (EOP), which establishes the County's emergency management organization consistent with California's Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS), and the Kern County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), which was approved by FEMA on April 9, 2021, and is administered by the Kern County Fire Department Office of Emergency Services.

Construction

No Community Wildfire Protection Plan (CWPP) has been adopted for the Indian Wells Valley or Inyokern area. The Project is not expected to substantially impair emergency response or evacuation. Construction activities would be managed to maintain emergency access on surrounding roadways, including SR-178 and US-395, and site access and internal circulation would be designed to meet KCFD and CFC requirements for emergency vehicle access. The Project's internal circulation and access design would be coordinated with KCFD to confirm compatibility with emergency response operations under the EOP.

Operation

Construction activities would be managed by a Construction Traffic Control Plan to maintain access for emergency vehicles on surrounding roadways, including SR-178 and US-395. During operations, the Project would generate a limited number of vehicle trips and is not anticipated to significantly impact traffic flow or evacuation capacity on regional routes. The Project access and internal circulation would be designed to meet KCFD/CFC standards for emergency vehicle access and on-site movement of emergency apparatus. The Project's Fire Protection Plan (FPP) would include emergency contact information and coordination protocols with KCFD, site plans showing access routes and fire lanes, and emergency procedures and employee training, including evacuation procedures and drills coordinated with KCFD. These FPP elements are specifically designed to support and complement the objectives of the EOP and MJHMP, ensuring that Project operations would not impair and would actively facilitate effective emergency response. During construction, construction managers and personnel would be trained in fire prevention and emergency response procedures. Fire suppression equipment specific to construction activities would be maintained onsite. Additionally, Project construction would comply with applicable existing codes and ordinances related to the maintenance of mechanical equipment, handling and storage of flammable materials, and cleanup of spills of flammable materials.

Mitigation Measures: No mitigation would be required.

Level of Significance: Less than significant.

Impact 4.20-2: Would the Project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Construction

The Project Site is not located within an SRA or VHFHSZ and is mapped within an LRA non-VHFHSZ area. The wildfire hazard mapping prepared for the Project identifies the Site as flat desert floor with sparse desert scrub and a low wildfire risk. The Project Site is relatively flat, eliminating slope as a contributing factor to fire spread. Prevailing winds could influence the direction of a regional fire; however, limited vegetation on and around the Project site reduces the potential for a large, wind-driven wildfire originating at the site.

Based on the Project location and setting, and the fire protection features described for the Project, the Project is not expected to exacerbate wildfire risk or contribute to the uncontrolled spread of wildfire. While regional wildfires could result in smoke exposure in the Project vicinity, this would be a region-wide condition and would not be exacerbated by the Project. The proposed Project would introduce temporary onsite employees during construction and operations and maintenance activities, but would not introduce permanent occupants. Given the low wildfire risk designation of the Project Site and the limited permanent population, the Project is not anticipated to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire due to slope, prevailing winds, and other factors. Most fires in the desert environment are caused by lightning or vehicles; the Project Site is not within a high FHSZ, and vegetation on and around the site reduces the potential for fire ignition and spread originating at the site.

Operation

During the operational and maintenance phase, the Project's fire protection features and operational protocols would serve to avoid exacerbation of wildfire risk. The 40 emergency diesel generators are housed within sound-attenuated enclosures with non-combustible construction and are designed to operate only during utility outages or scheduled testing and maintenance, consistent with CARB and EKAPCD requirements. Generator exhaust systems are equipped with aftertreatment controls (SCR, DPF, and DEF systems) and are subject to manufacturer-specified preventive maintenance protocols that include inspection and servicing of exhaust system components to minimize the risk of hot-surface ignition. Diesel fuel storage tanks are double-walled with integrated leak detection systems or installed within secondary containment structures, reducing the risk of spills that could serve as ignition fuel. Vegetation within and around the generator yards and fuel storage areas would be managed as part of the ongoing vegetation management program described in the Fire Protection Plan, maintaining defensible space consistent with California Public Resources Code Section 4291 and KCFD requirements. The Project's operational fire protection measures, including emergency contact protocols, fire suppression water supply, and access route maintenance, would be implemented and verified through KCFD coordination over the life of the Project. These construction-phase controls would be incorporated into the Fire Protection Plan and implemented throughout the construction period. No additional mitigation would be required.

Mitigation Measures: MM 4.20-1 and MM 4.20-2 shall be implemented (see Section 4.20.4).

Level of Significance: With the stated mitigation measures impacts would be less than significant.

Impact 4.20-3: Would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate the risk of wildfire or result in temporary or ongoing impacts to the environment.

Construction and Operation

The Project would connect to utilities including electrical facilities, domestic water, and sanitary sewer (through annexation into the Inyokern Community Services District). The Project includes

a subtransmission line connecting the Project to the electrical grid via a proposed 30-foot easement corridor extending to the interconnection point at US Route 395. The subtransmission line route traverses relatively flat, disturbed desert terrain and would be managed within the designated easement corridor. New Project site access roads would be installed throughout the Project area to support construction and ongoing operations and maintenance activities. Access roads would be designed and constructed to meet KCFD and CFC requirements for emergency vehicle access, including adequate width, turning radii, clearance, and load-bearing capacity. All new roads would comply with applicable development requirements for emergency access. The six 100,000-gallon diesel fuel storage tanks would be located in designated fuel storage areas with dedicated 24-foot wide containment service roads and secondary containment fields to manage any potential releases. Electrical facilities, including the generator electrical systems and the subtransmission line, would be designed and installed per applicable safety standards to minimize ignition risk. While these infrastructure elements introduce potential ignition-related risks associated with electrical faults, fuel handling, and vehicle operations, none would be located within an SRA or VHFHSZ, and the Project Site vegetation is sparse, reducing the potential for infrastructure-related ignition to result in uncontrolled wildfire spread.

Mitigation Measures: MM 4.20-3 and MM 4.20-4 shall be implemented (see Section 4.20.4). Electrical infrastructure would be designed and installed to meet applicable safety standards to minimize ignition risk.

Level of Significance: With the stated mitigation measures impacts would be less than significant.

Impact 4.20-4: Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Construction

The Project Site and surrounding area are relatively flat; therefore, risk of landslides or post-fire slope instability is negligible. The Project would be required to implement a Stormwater Pollution Prevention Plan (SWPPP), which would include erosion and sediment control best management practices (BMPs) during construction, reducing the potential for erosion and siltation during construction and controlling potential flooding events. Stormwater management would include an onsite retention basin sized to retain Project runoff and designed consistent with County drainage standards. The retention basin would be designed to limit ponding depth (conceptually not exceeding 18 inches) and to drain within a prescribed period (conceptually within seven days), the Site would grade to drain to the retention basin, and no underground storm drain infrastructure is planned as part of the Project drainage concept.

Operation

With respect to downslope and downstream receptors, adjacent and nearby land uses include the Inyokern Airport to the west, the RB Solar Project to the north, an existing wastewater treatment plant to the northeast, and undeveloped desert open space to the south and east, with the community of Inyokern located further west and the community of Ridgecrest located to the southeast. Given

the flat topography, the absence of defined drainage channels conveying runoff toward populated areas, and the Project’s onsite retention basin designed to capture Project runoff, no people or structures downslope or downstream of the Project are identified as being at risk of flooding, post-fire slope instability, or landslide effects associated with the Project.

Mitigation Measures: No mitigation would be required.

Level of Significance: Less than significant.

Impact 4.20-5: For a Project located in or near an SRA or VHFHSZ, would the Project expose people or structures to significant risk of loss, injury, or death involving wildland fires.

Construction and Operation

The Project site is not located within an SRA or a VHFHSZ. Surrounding SRA lands are generally classified as Moderate Fire Hazard Severity Zone per CAL FIRE mapping effective April 1, 2024. The Project would comply with applicable fire code requirements and KCFD standards for fire apparatus access, water supply and fire flow, and fire prevention, and would develop and implement a Fire Protection Plan (see Section 4.20.4). Based on the Project setting and the fire protection features identified in the current Project materials, wildfire-related risk of loss, injury, or death would be less than significant.

Mitigation Measures: No mitigation would be required.

Level of Significance: Less than significant.

4.20.4 Mitigation Measures

The following mitigation measures shall be implemented to reduce wildfire-related impacts associated with construction, operation, and maintenance of the Project. Table 4.20-A provides a cross-reference of each mitigation measure to the applicable CEC SPPE Appendix B (g)(19) requirement. As documented in the Wildfire Assessment (Appendix D.2), compliance with applicable Laws, Ordinances, Regulations, and Standards (LORS) and implementation of the Fire Protection Plan would reduce wildfire-related impacts to a less-than-significant level. The measures below are enforceable commitments that, together with code-compliant site design, secondary containment systems, non-combustible construction, and KCFD coordination, are collectively effective in reducing wildfire ignition risk and protecting public safety.

Table 4.20-A CEC SPPE Appendix B (g)(19) Compliance Cross-Reference

Ref.	Appendix B (g)(19) Requirement	Section / Table	Status
(A) Mapping Requirements — Appendix B (g)(19)(A) and (B)			

(g)(19)(A)	Map showing State Responsibility Areas (SRAs) relative to the proposed project	Section 4.20.1; Figure WF-001	✓ Addressed
(g)(19)(B)	Map showing state Fire Hazard Severity Zones (FHSZs) relative to the proposed project	Section 4.20.1; Figure WF-001	✓ Addressed
(B) Disclosure Requirements — Appendix B (g)(19)(C)(i) through (iv)			
(g)(19)(C)(i)	Local emergency response or evacuation plans applicable to the project area	Sections 4.20.3.1 (Impact 4.20-1); 4.20.5.3	✓ Addressed
(g)(19)(C)(ii)	Onsite containment of potential project pollutants during a wildfire event	Sections 4.20.3.1 (Impact 4.20-3); 4.20.4 (MM 4.20-3, MM 4.20-4); 4.20.5.4	✓ Addressed
(g)(19)(C)(iii)	Infrastructure associated with the Project that may exacerbate wildfire risk	Sections 4.20.3.1 (Impact 4.20-3); 4.20.4 (MM 4.20-1–MM 4.20-4); 4.20.5.5	✓ Addressed
(g)(19)(C)(iv)	People or structures downslope or downstream that could be affected by flooding or landslides resulting from runoff, post-fire slope instability, or drainage changes	Sections 4.20.3.1 (Impact 4.20-4); 4.20.5.6	✓ Addressed
(C) CEQA Appendix G Significance Criteria — Wildfire			
CEQA (a)	Substantially impair an adopted emergency response plan or emergency evacuation plan	Section 4.20.3.1 (Impact 4.20-1)	✓ Addressed
CEQA (b)	Exacerbate wildfire risks and expose project occupants or the public to pollutant concentrations or uncontrolled spread of wildfire	Section 4.20.3.1 (Impact 4.20-2); 4.20.4 (MM 4.20-1, MM 4.20-2)	✓ Addressed

CEQA (c)	Require installation or maintenance of infrastructure that may exacerbate wildfire risk or result in environmental impacts	Section 4.20.3.1 (Impact 4.20-3); 4.20.4 (MM 4.20-3, MM 4.20-4)	✓ Addressed
CEQA (d)	Expose people or structures to significant risks from runoff, post-fire slope instability, or drainage changes	Section 4.20.3.1 (Impact 4.20-4)	✓ Addressed
CEQA (e)	Expose people or structures to significant risk of loss, injury, or death involving wildland fires (project in or near SRA or VHFHSZ)	Section 4.20.3.1 (Impact 4.20-5)	✓ Addressed

Source: California Code of Regulations, Title 20, Division 2, Chapter 5, Appendix B, Section (g)(19), effective July 20, 2023. All criteria addressed in this chapter; full technical disclosure in Wildfire Assessment (Appendix D.2).

Mitigation Measures

MM 4.20-1: Prior to issuance of grading permits, the Applicant shall submit a Fire Protection Plan (FPP) to the Kern County Fire Department (KCFD) for review and approval. The FPP shall incorporate wildfire risk reduction features, including non-combustible construction for generator enclosures and fuel storage structures, defensible space and vegetation management consistent with California Public Resources Code Section 4291 and KCFD requirements, code-compliant electrical and fuel system design, and fire suppression water supply consistent with KCFD and CFC requirements. A copy of the approved FPP shall be provided to the CEC upon request.

MM 4.20-2: Prior to commencement of ground-disturbing construction activities, the Applicant shall incorporate hot work permit controls into the Construction Fire Prevention Plan. During construction, activities involving ignition sources—including welding, cutting, and grinding operations—shall not be performed in proximity to dry vegetation or combustible materials without a designated fire watch. Construction equipment shall be equipped with spark arrestors where required by applicable regulations. Vegetative debris cleared from the site shall be managed and disposed of in a manner that minimizes fire hazard, consistent with KCFD requirements.

MM 4.20-3: Prior to commencement of operations, the Applicant shall ensure that emergency generators and diesel fuel storage are located in secured areas and managed with secondary containment and operational procedures intended to minimize fire risk. The six 100,000-gallon diesel fuel storage tanks shall be double-walled with integrated leak detection systems or installed within secondary containment structures, as described in the Air Quality Impact Analysis (Appendix F.1). Written approval from the Kern County Fire Marshal shall be obtained for fuel storage pursuant to Kern County Code Section 18.80.030(T) prior to fuel storage operations commencing.

MM 4.20-4: Throughout the operational life of the Project, the Applicant shall maintain all Project infrastructure consistent with the following requirements, to be documented in the Fire Protection

Plan: electrical systems, including generator electrical components and the subtransmission line, shall be subject to periodic inspection and preventive maintenance per manufacturer specifications and applicable code requirements; diesel fuel storage tanks and generator built-in fuel tanks shall be inspected regularly for leaks and any releases addressed promptly per the SPCC Plan and HMBP; generator SCR/DPF aftertreatment systems, DEF storage tanks, and urea injection systems shall be maintained per manufacturer requirements; fire apparatus access routes shall be maintained passable and clear of obstructions at all times per CFC and KCFD requirements; and fire suppression water supply, detection systems, and emergency procedures shall be maintained in operable condition and tested on a schedule consistent with the Fire Protection Plan and applicable code requirements. Monitoring: The Applicant shall document compliance with MM 4.20-1 through MM 4.20-4 through the following: (1) submission of the approved FPP to KCFD prior to ground disturbance and provision of a copy to the CEC upon request; (2) inclusion of annual inspection records for fire suppression systems, fuel containment structures, and vegetation management activities within the Project's operational records; (3) prompt reporting to KCFD of any fuel release or fire suppression system deficiency identified during routine inspections; and (4) verification of continued compliance through KCFD coordination, permitting, and code enforcement over the life of the Project.

4.20.5 CEC SPPE Appendix B — Additional Wildfire Disclosure Requirements

This section provides the additional wildfire disclosure information required by CEC SPPE Appendix B, Section (g)(19). This information supplements the CEQA impact analysis provided in Sections 4.20.1 through 4.20.4 above. Appendix B, Section (g)(19), requires: a map showing SRAs relative to the Project; a map showing state FHSZs relative to the Project; and, where the Project is in the vicinity of an SRA or VHFHSZ, additional discussion of emergency response plans, pollutant containment, infrastructure risk, and downstream hazards. Each of these requirements is addressed below.

Fire Hazard Severity Zone and SRA Mapping — Appendix B (g)(19)(A)/(B)

The Project Site is located within a Local Responsibility Area (LRA) classified as non-VHFHSZ. The required SRA and FHSZ maps are provided as Figure WF-001 in Section 4.20.1 of this chapter and are also submitted as Appendix B §(g)(19)(A)/(B) exhibits. The nearest SRA is located ~3.0 miles west of the Project Site and is classified as SRA Moderate. No VHFHSZ is identified within 10 miles of the Project Site.

Project Vicinity of SRA and VHFHSZ — Appendix B (g)(19)(C)

The term “in the vicinity of” as used in SPPE Appendix B §(g)(19)(C) has not been defined by CEC regulation, staff guidance, or published SPPE decision. The Applicant's position is that the Project is not located “in the vicinity of” an SRA or VHFHSZ based on the ~3.0-mile separation between the Project Site and the nearest SRA and the absence of any VHFHSZ within 10 miles of the Project Site. Nonetheless, the information specified in Appendix B §(g)(19)(C)(i) through (iv) is provided below for completeness.

Emergency Response and Evacuation Plans — Appendix B (g)(19)(C)(i)

The applicable local emergency management framework consists of the Kern County Emergency Operations Plan (EOP) and the Kern County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP). No Community Wildfire Protection Plan has been adopted for the Indian Wells Valley or Inyokern area. The Project would not impair these plans. The Project's Fire Protection Plan (FPP) would be developed in coordination with KCFD and would include emergency contact information and KCFD coordination protocols, site plans depicting access routes and fire lanes consistent with KCFD requirements, and emergency evacuation procedures and employee training drills coordinated with KCFD. Construction activities would be managed by a Construction Traffic Control Plan to maintain emergency vehicle access on SR-178 and US-395. During operations, Project-generated vehicle trips would not significantly impact traffic flow or evacuation capacity on regional routes. The FPP framework positively supports EOP implementation by ensuring that KCFD has current site contact information, confirmed access routes, and trained site personnel capable of coordinating with emergency responders. As described in the analysis of Impact 4.20-1 above, the Project is not expected to impair and would actively support the effectiveness of the EOP and MJHMP.

Onsite Containment of Pollutants During Wildfire — Appendix B (g)(19)(C)(ii)

The primary onsite pollutants of concern in a wildfire scenario are diesel fuel and Diesel Exhaust Fluid (DEF/urea). The Project includes six 100,000-gallon aboveground diesel fuel storage tanks and individual 330-gallon DEF storage tanks associated with each generator's Johnson Matthey SCRT aftertreatment system. Each fuel storage area is designed with a dedicated secondary containment field and 24-foot wide containment service roads to manage potential releases. The fuel storage tanks are double-walled with integrated leak detection systems, providing a primary barrier against releases during normal operations and emergency conditions including wildfire. In the event of a wildfire affecting the Project Site, the secondary containment structures surrounding the fuel storage areas would contain any releases within the designated containment field, preventing migration to off-site areas. DEF (32.5% urea solution) is non-flammable and would not contribute to fire spread. The Project's Spill Prevention, Control, and Countermeasure (SPCC) Plan and Hazardous Materials Business Plan (HMBP) would address onsite containment requirements and establish response protocols for release scenarios including those occurring during emergency conditions. These measures are also described in MM 4.20-3 and MM 4.20-4.

Infrastructure That May Exacerbate Wildfire Risk — Appendix B (g)(19)(C)(iii)

The following Project infrastructure types have the potential to exacerbate wildfire risk and are addressed below. subtransmission line: The Project includes a subtransmission line within a 30-foot easement corridor connecting to the electrical grid at US Route 395. Electrical infrastructure, including overhead or underground lines and associated equipment, can be a source of ignition if not properly designed and maintained. The subtransmission line would be designed and installed per applicable utility and code standards to minimize ignition risk, and would be subject to periodic inspection and preventive maintenance per MM 4.20-4. Access Roads: New Project site access roads would be constructed to support construction and operations and maintenance activities. Vehicle traffic on access roads introduces a potential ignition source through catalytic converter

contact with dry vegetation or mechanical sparks. All access roads would comply with KCFD and CFC requirements for emergency vehicle access and would be designed to minimize vegetation encroachment. Fuel Storage and Generator Systems: The six 100,000-gallon diesel fuel storage tanks and associated generator fuel systems represent a concentration of flammable materials onsite. A fuel spill in the vicinity of an ignition source could exacerbate fire risk. Secondary containment fields, double-walled tank construction, and operational procedures per MM 4.20-3 reduce this risk. The generator enclosures are constructed of non-combustible materials and the generators operate only during utility outages or scheduled testing. Electrical Systems: Generator electrical components and associated switchgear introduce ignition potential through electrical faults. These systems would be designed per applicable safety standards and maintained per MM 4.20-4. As described in the analysis of Impact 4.20-3 and in MM 4.20-3 and MM 4.20-4, all Project infrastructure would be designed, installed, and maintained to minimize ignition risk consistent with applicable codes and KCFD requirements.

Downstream Flooding and Landslide Hazards — Appendix B (g)(19)(C)(iv)

The Project Site and surrounding area are relatively flat. Post-fire slope instability and landslide risk are negligible. The Project's onsite retention basin would capture Project runoff. No people or structures downslope or downstream are identified as being at significant risk, as described in the analysis of Impact 4.20-4.

4.20.6 Cumulative Setting, Impacts and Mitigation Measures

The geographic scope for the wildfire cumulative analysis is the Indian Wells Valley. This geographic scope is selected because of its relatively uniform terrain, soil conditions, climate, and habitat value; its low population and development density; and the region's common groundwater basin and water supply considerations. The cumulative setting for wildfire hazards within this area is based on the regional LRA Non-VHFHSZ designation of the Indian Wells Valley desert floor, the absence of any VHFHSZ within 10 miles of the Project Site, and the regionally low wildfire hazard conditions documented in the wildfire hazard mapping prepared for the Project, consistent with the approach described in CEQA Guidelines Section 15130. The Project, in combination with other existing and planned development in the Inyokern area, may contribute incrementally to the number of people and structures present in the region. See Appendix N.3 (Cumulative Projects and Cumulative Impacts Analysis) for the full list of past, present, and reasonably foreseeable projects considered in the cumulative wildfire analysis.

With regard to impairment of an adopted emergency response plan or emergency evacuation plan, all related projects in the Indian Wells Valley would be required to provide adequate emergency access in accordance with County Fire Code and Building Code requirements prior to the issuance of building permits. The Project Site is not classified as being within a high FHSZ, is located in a rural, sparsely developed area with limited population, and is not located along an identified emergency evacuation route or within an adopted emergency evacuation plan. As concluded in the discussion of Project impacts above, the Project would have a less-than-significant impact related to impairment of an adopted emergency response or evacuation plan. Similar requirements would apply to related projects in the area.

With regard to cumulative impacts related to exposure of project occupants to pollutant concentrations from a wildfire, the Project Site is not within an SRA or VHFHSZ. Similar to the proposed Project, all related projects would be required to implement building and landscape design features in accordance with the Fire Code and Building Code to reduce wildfire risk. Adherence to applicable Fire Code and Building Code requirements would minimize potential impacts related to exposure to and the uncontrolled spread of a wildfire. As concluded in the discussion of Project impacts above, the Project would have a less-than-significant impact related to exposure of project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Related projects may require associated infrastructure such as roads, fuel breaks, and power lines that could exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. These projects would be reviewed by Kern County for land use and zoning consistency and compliance with applicable requirements. The placement of infrastructure would adhere to all applicable fire codes to minimize potential fire risk through appropriate siting and design. The proposed Project would involve the installation and maintenance of a subtransmission line, emergency generators, diesel fuel storage systems, and access roads to support Project construction and ongoing maintenance and operation. As concluded in the discussion of Project impacts above, the Project would have a less-than-significant impact related to the installation or maintenance of associated infrastructure.

Some related projects could be proposed in areas that could expose people or structures to risks from downslope or downstream flooding or landslides as a result of post-fire slope instability. All projects would be required to adhere to Kern County's zoning and land use designations and codes, State and local fire codes, and regulations associated with drainage and site stability. Each project would require site-specific hydrology and drainage studies for effective drainage design. As concluded in the discussion of Project impacts above, the Project would not expose people or structures to significant risks due to post-fire slope instability or drainage changes and would have a less-than-significant impact. Based on the Project setting and the fire protection and drainage features incorporated into the Project, the Project is not expected to make a cumulatively considerable contribution to wildfire hazards in the Project vicinity.

Mitigation Measures: No mitigation would be required.

Level of Significance: Cumulative impacts would be less than significant.

SECTION 5.0 - GROWTH-INDUCING IMPACTS

5.1 Overview

The California Environmental Quality Act (CEQA; Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000–15387) require that an environmental document evaluate whether a project would foster economic or population growth, or the construction of additional housing, either directly (e.g., by providing new infrastructure that enables additional development) or indirectly (e.g., by removing an obstacle to growth or by creating substantial new long-term employment that results in secondary growth). CEQA Guidelines Section 15126.2(d) specifically requires discussion of the growth-inducing impacts of a proposed action, including ways in which the project could foster economic or population growth — directly or indirectly — in the surrounding environment. Growth-inducing impacts are generally considered significant when a project would create or substantially accelerate growth that would not otherwise occur, particularly where that growth could in turn cause substantial environmental effects.

In addition to the CEQA framework, the California Energy Commission (CEC) Small Power Plant Exemption (SPPE) Appendix B information requirements address growth-related subjects within several technical areas, including: Section (g)(7) (Socioeconomics), which requires disclosure of population and demographic trends, housing availability, employment projections, public service capacities, and direct, indirect, and induced income and employment effects; Section (g)(3) (Land Use), which requires evaluation of project compatibility with existing and planned land uses and applicable long-range planning documents; Section (g)(5) (Traffic and Transportation), which requires assessment of project traffic generation and its effects on the existing transportation network; and Section (g)(7)(B)(xiii), which requires a discussion of impacts to environmental justice populations. Together, these requirements establish the analytical framework for the growth-inducing discussion presented in this section.

The significance threshold applied in this analysis is whether the Project would foster economic or population growth or the construction of additional housing that is not already planned or anticipated under adopted general plans, specific plans, or other planning documents — particularly growth that could in turn cause significant adverse physical effects on the environment. Consistent with CEQA Guidelines Section 15126.2(d), the analysis focuses on: (1) whether the Project would directly or indirectly remove a constraint on growth; (2) whether the Project’s infrastructure would create capacity that could support development beyond the Project site; (3) whether Project-related employment would generate population growth that results in secondary housing demand or public service strain; and (4) whether the Project is consistent with the adopted long-range land use plans that govern the rate and location of future development.

This section incorporates and cross-references the Preliminary Economic, Socioeconomic, Environmental Justice, and Growth-Inducing Impact Analysis (hereinafter “Socioeconomic Analysis”; Appendix J.2), the Environmental Justice Analysis (Appendix J.2), and the detailed findings of Sections 4.11 (*Land Use and Planning*), 4.14 (*Population and Housing*), 4.15 (*Public Services and Recreation*), 4.16 (*Transportation*), and 4.19 (*Environmental Justice*) of this Application.

5.2 Project Description and Characteristics Relevant to Growth

The RB Inyokern Data Center (RBIDC) Project (Project) consists of construction and operation of an approximately 50-acre, continuously operational 99-megawatt (MW) Tier III hyperscale data center campus located at APNs 084-010-43, 084-010-44, 084-010-45, and 084-010-48 in the unincorporated community of Inyokern, northeastern Kern County, California. The Project site is generally bounded by State Route 178 (SR-178/West Inyokern Road) to the south, Brown Road to the west, the RB Inyokern Solar Project to the north, and U.S. Highway 395 (US-395) to the east. The Project site is designated Service Industrial/Flood Hazard in the Kern County General Plan Land Use Element and is zoned M-2 PD (Medium Industrial, Precise Development Combining) under Chapter 19.38 of the Kern County Zoning Ordinance.

The data center building would be approximately 238,000 square feet, single-story, with a maximum building height of 30 feet and six modular data suites. The facility would operate on a 24/7 continuous basis. The Project also includes an emergency backup generating facility consisting of forty diesel generators (3 MW each, 40 units; 99 MW maximum facility load), two hybrid cooling towers, and associated mechanical and electrical infrastructure. The emergency backup generating facility is designed exclusively to serve on-site loads during utility outages and limited testing and maintenance activities; it does not export electricity to the transmission or distribution grid and does not create new grid capacity that could support off-site development.

The Project also includes ancillary photovoltaic (PV) solar installed primarily on building rooftops and parking canopies, which may offset a portion of on-site daytime electrical demand where feasible. The rooftop/canopy PV system is not intended as a utility-scale generation facility and does not create surplus generation capacity available to serve off-site loads.

The Project includes a new customer-dedicated substation and associated two overhead 115 kV subtransmission lines (Route 1, ~8,000 LF/34 structures; Route 2, ~4,000 LF/14 structures) traversing unincorporated Kern County from the Project site to a Southern California Edison (SCE) Point of Interconnection (POI) proximate to the existing Inyokern Substation (APN 352-502-23-1), two separate routes per SCE MOS174 (Route 1: ~8,000 LF / 34 structures; Route 2: ~4,000 LF / 14 structures). The subtransmission line routes are overhead within the 30-foot utility easement corridor and are designed exclusively to provide electrical service to the Project. No new or expanded distribution or transmission capacity is provided beyond that required to serve Project loads.

The Project will be annexed into the Inyokern Community Services District (Inyokern CSD, or successor/consolidated provider) for domestic water and sanitary sewer service, consistent with the State Water Resources Control Board consolidation planning underway as of 2025. All on-site and off-site utility improvements necessary to serve the Project will be fully funded by the Applicant and sized to meet Project demands.

Table 5-1. Project Characteristics Summary

Project Characteristic	Description
Project Type	Tier III Hyperscale Data Center
Site Area	Approximately 50 acres (main campus) + subtransmission line corridor (~20 acres)
Gross Floor Area	Approximately 238,000 sq ft, single-story
Facility Rating	99 MW (40 × 3 MW diesel generators, N+2 redundancy)
Building Height	Maximum 30 feet above finished grade
Land Use Designation	Service Industrial / Flood Hazard (Kern County General Plan)
Zoning	M-2 PD (Medium Industrial, Precise Development Combining)
Operations	24/7 continuous operation
Construction Duration	Approximately 48 months
Peak Construction Workforce	~592 workers (Month 20)
Average Construction Workforce	~300 workers/month
Permanent Operations Workforce	~30 to 60 employees (plus contract support)

Project Characteristic	Description
Electrical Interconnection	Two overhead 115 kV subtransmission lines to SCE Inyokern Substation POI
Water/Sewer Service	Inyokern CSD (or successor/consolidated provider)
On-Site Generation	Emergency backup only; no grid export
Ancillary Solar PV	Rooftop/canopy; on-site demand offset only; no grid export
Project Capital Cost (ROM)	\$838,900,000

Source: Site Plan (Appendix A.1); Socioeconomic Analysis (Appendix J.2); Section 4.11, Land Use and Planning.

5.3 Potential for Growth-Inducing Effects

The following subsections evaluate the Project's potential to induce growth in the Inyokern area and broader Indian Wells Valley region across the categories identified in CEQA Guidelines Section 15126.2(d) and CEC Appendix B: (1) population growth and housing; (2) economic growth and secondary development; (3) extension of infrastructure and utilities; (4) transportation; and (5) removal of regulatory or physical barriers to growth. Each subsection identifies the applicable CEQA threshold, summarizes the relevant project characteristics and setting conditions, presents the analysis, and states a level of significance.

5.3.1 Population Growth and Housing

CEQA Guidelines Appendix G evaluates whether the Project would induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes or businesses) or indirectly (e.g., by extending a road into a rural area). The analysis below draws on the Socioeconomic Analysis (Appendix J.2) and the Population and Housing impact analysis in Section 4.14 of this Application.

Construction Workforce

Construction of the Project would occur over an approximately 48-month period. As documented in the Socioeconomic Analysis (Tables SEJ-1, SEJ-1A, SEJ-1B), the Project is projected to require an average on-site workforce of approximately 300 to 306 workers per month, with a peak monthly

workforce of approximately 592 workers, concentrated in Months 18 through 22 (the vertical/MEP construction phase). The total construction employment is estimated at 14,401 job-months (approximately 1,200 job-years).

The Applicant intends to utilize primarily union labor drawn from existing Kern County and regional Southern/Central California labor pools. Consistent with this approach, the Socioeconomic Analysis (Section 4.1) estimates that household relocation to the Inyokern area attributable to construction would be approximately 0 to 2 percent of the peak workforce, representing approximately zero to 12 persons at maximum. This represents less than 1.3 percent of the Inyokern CDP's existing population of approximately 958 persons (2020 Decennial Census) — a temporary effect of negligible magnitude. Non-local specialized personnel would be present only for limited durations during commissioning activities and would rely on short-term lodging in Ridgecrest or the broader Indian Wells Valley rather than permanent household relocation.

Construction employment is temporary and phased. Upon completion, construction jobs would end and the workforce would disperse to other regional projects. Construction activity does not represent a long-term driver of population growth in the Inyokern area.

Operations Workforce

Upon completion, the Project would employ approximately 30 to 60 permanent operations employees, supplemented by contract personnel for maintenance, security, and information technology services (Socioeconomic Analysis, Section 2.4). This operations workforce is comparatively small relative to the existing workforce base in the Indian Wells Valley and would not, by itself, generate measurable population growth or new housing demand in the Inyokern area. Operations employees would be drawn from the existing regional labor market in Ridgecrest and surrounding communities; the Socioeconomic Analysis does not project new household formation attributable to operations staffing that would meaningfully increase the demand for housing in Inyokern or Kern County.

No Residential Component

The Project does not include any residential development. The Project Site does not contain occupied housing. Implementation of the Project would not remove existing housing, demolish occupied residential units, or displace residents. The Project would not directly facilitate the construction of housing.

Table 5-2. Construction and Operations Workforce Summary

Metric	Value	Source
Average monthly construction workforce	~300 workers/month	Socioeconomic Analysis, Table SEJ-1B

Metric	Value	Source
Peak monthly construction workforce	~592 workers (Month 20)	Socioeconomic Analysis, Table SEJ-1B
Total construction job-months	14,401	Socioeconomic Analysis, Table SEJ-1B
Total construction job-years	~1,200	Socioeconomic Analysis, Table SEJ-1B
Expected household relocation (construction)	0–2% of peak workforce (~0–12 persons)	Socioeconomic Analysis, Section 4.1
Primary labor source	Kern County and regional union labor pools	Socioeconomic Analysis, Section 3.6
Permanent operations workforce	~30 to 60 employees (plus contract support)	Socioeconomic Analysis, Section 2.4
Projected relocation-induced population change	Negligible (<1.3% of Inyokern CDP population)	Section 4.14

Source: Socioeconomic Analysis (Appendix J.2); Section 4.14 of this Application.

Level of Significance: Less than Significant. The Project’s temporary construction workforce is expected to produce negligible household relocation (0 to 12 persons) and the permanent operations workforce of 30 to 60 employees is insufficient to generate measurable population growth or new housing demand. No mitigation is required.

5.3.2 Economic Growth and Secondary Development

CEQA Guidelines Section 15126.2(d) directs evaluation of whether a project would enable new economic growth in a manner that would alter regional development patterns or induce secondary development beyond what is planned under adopted land use policies. Consistent economic activity that occurs within the envelope of planned land uses and that does not materially alter the

rate or pattern of regional development is not, by itself, a growth-inducing impact for purposes of CEQA.

Construction-Period Economic Activity

Construction of the Project would generate substantial short-term economic activity in Kern County and the broader regional economy. The Socioeconomic Analysis (Sections 4.5, 4.7, and Tables SEJ-5, SEJ-6, SEJ-6A, SEJ-11) documents the following construction-period economic contributions:

- Total project capital cost (ROM): \$838,900,000 for the 99 MW campus
- Total construction payroll (local/regional labor share): approximately \$110 million to \$170 million over 48 months
- Total local and regional materials and services purchases during construction: approximately \$300 million to \$600 million
- Construction-period sales and use tax revenue (at 8.25% CDTFA rate for unincorporated Kern County): approximately \$2.5 million to \$7.4 million
- Direct construction employment: approximately 1,223 job-years; indirect: ~295 job-years; induced: ~222 job-years (total ~1,740 job-years over 48 months)

While these are substantial economic contributions, construction-period spending is temporary. Once construction is complete, the economic activity associated with construction employment, procurement, and contractor services would cease. Construction-period economic activity that does not result in permanent infrastructure expansion or sustained employment generally does not constitute a growth-inducing impact under CEQA because it does not materially alter long-term regional development patterns.

Operations-Period Economic Activity

During operations, the Project would generate the following ongoing economic contributions (Socioeconomic Analysis, Sections 2.4 and 4.5 through 4.7, Tables SEJ-5, SEJ-6, SEJ-11):

- Annual operations payroll (permanent staff): approximately \$3 million to \$12 million per year
- Annual local/regional contract services: approximately \$1 million to \$5 million per year
- Illustrative annual property tax revenue: approximately \$5 million to \$9 million per year (based on illustrative assessed value of \$500 million to \$900 million at the applicable Kern County ad valorem rate of approximately 1.0% base rate under Proposition 13, plus voter-approved debt levies)

- Direct operations employment: 30 to 60 permanent positions; indirect: ~28 to 55 jobs; induced: ~19 to 40 jobs annually
- Operations indirect labor income: ~\$1.9 million to \$7.6 million/year; induced labor income: ~\$1.5 million to \$6.1 million/year

The operations-period economic footprint of the Project is consistent with that of a mid-scale industrial facility in a rural desert community and would not, by itself, materially alter regional growth patterns. The Project is located on land designated and zoned for industrial uses; its economic contribution is therefore consistent with planned land use patterns and does not represent a change that would remove a major barrier to new development beyond what is already anticipated under adopted land use policies. The Project's operations-level employment is also insufficient to generate a secondary housing market or to create demand for major new commercial services that would attract additional development to the Inyokern area.

Secondary Development Potential

Secondary development occurs where a project creates the conditions (market demand, labor force, or infrastructure) that make additional unplanned development viable. The Project is not expected to act as a catalyst for secondary development for the following reasons:

- The Project is consistent with the industrial land use designation applicable to the Project Site. Its development does not change the pattern of planned land uses or create a new growth node in an area not already designated for industrial development.
- The Project's permanent workforce is small (30 to 60 employees) and is not expected to generate significant demand for new commercial services, retail development, or residential construction in the Inyokern community.
- The Inyokern area is an established community with existing commercial and service infrastructure serving the residential population. The small incremental workforce associated with Project operations would be accommodated within existing commercial capacity in Ridgecrest and the Indian Wells Valley rather than necessitating new development.
- The Project does not include amenities, infrastructure, or economic attractors (e.g., publicly accessible facilities, regional employment centers, or commercial anchors) that typically catalyze secondary development in adjacent areas
- The Project will fund and own the 115 kV substation bus via a single short over-the-fence 115 kV tie line to an existing SCE-owned customer dedicated substation 115 kV bus and no upgrades to the SCE substation would be required, subject to any future modifications to the Project's system topology, Project configuration, or customer load characteristics may necessitate a restudy to confirm continued system adequacy. Additionally, no new or expanded distribution or transmission capacity is required beyond that required to serve Project loads.

- The Inyokern CSD has contracted and/or developed water supplies sufficient to serve the Project's Projected demands within the District's planning horizon. If the District requests oversizing beyond Project need, the parties shall execute a reimbursement agreement as described in Section 5.6 of the District's executed Will-Serve Letter (April 2, 2026).
- The Inyokern CSD preliminarily found existing trunk sewer facilities for the Project's wastewater to have sufficient capacity; subject to upsizing specifically tied to the Project of the lateral connection may be required based on final hydraulic modeling.
- The Inyokern CSD has preliminarily found that the Project has sufficient onsite stormwater management capacity. Stormwater runoff would be retained onsite through site grading and a retention basin on the west side of the site compliant with Kern County Public Works requirements. The retention basin is sized at approximately 2.2 acre-feet consistent with the 10-year, five-day design storm and applicable Kern County Flood Control and Water Conservation District drainage criteria. Final stormwater design, including retention sizing, freeboard, overflow features, and construction sequencing, would be established during final engineering and County review prior to issuance of grading permits.

Level of Significance: Less than Significant. Project-related economic activity is consistent with planned industrial land uses and would not materially alter regional development patterns or induce unplanned secondary development. No mitigation is required.

5.3.3 Extension of Infrastructure and Utilities

Projects may be growth-inducing if they extend major infrastructure — such as new regional roadway corridors, large water or sewer trunk lines, or electrical transmission facilities — in a manner that enables substantial new development outside the project site. The analysis below evaluates each infrastructure component of the Project against this standard.

Electrical Interconnection

The Project includes a new customer-dedicated substation and associated two overhead 115 kV subtransmission lines extending from the Project site to the existing SCE Inyokern Substation POI, per SCE MOS174 (March 30, 2026). The subtransmission line is designed and sized exclusively to meet the Project's 99 MW load requirement. It does not create new grid export capacity, does not upgrade or expand the existing SCE Inyokern Substation beyond what is required for the Project's interconnection, and does not provide transmission capacity available to serve unrelated future development. The customer-dedicated substation and subtransmission line facilities will be owned by the Applicant and operated solely to serve Project needs. This configuration does not constitute a growth-inducing infrastructure extension.

Water and Wastewater Service

The Project will obtain water and wastewater service through annexation into the Inyokern CSD, or from a successor/consolidated provider if the State Water Resources Control Board consolidation process advances. As documented in the Socioeconomic Analysis and Section 4.15

(Public Services), all on-site and off-site utility improvements necessary to serve the Project would be fully funded by the Applicant. This includes any lift station, force main, pretreatment, or capacity improvements required to serve Project water demand and wastewater generation. Improvements will be sized and designed to meet Project-specific demands only and would be funded by the Applicant rather than creating new regional capacity intended to serve unrelated future development. Accordingly, the Project's water and sewer infrastructure does not create surplus capacity that would enable or encourage development outside the Project site.

The Inyokern CSD's current service area and planned infrastructure are documented in Appendix J.2. The State Water Board consolidation process underway for Inyokern CSD reflects pre-existing system considerations unrelated to the Project. The Project's annexation into the CSD service area is consistent with the planned expansion of the CSD service area and does not independently create new infrastructure capacity that would enable additional development in areas not already served or planned to be served.

Solid Waste

Construction debris would be hauled by licensed contractors to permitted regional disposal facilities through Kern County franchise haulers. Operations waste would be managed through routine industrial service, recycling, and organics programs consistent with Kern County solid waste requirements. The Project does not require or construct new solid waste disposal infrastructure. No growth-inducing effect is associated with solid waste service.

Transportation Infrastructure

The Project would not construct new public roadway corridors or major transportation improvements that would be expected to induce regional growth. Project access would occur via existing SR-178 and Brown Road, with any required local improvements limited to those necessary for safe site access and circulation (e.g., dedicated turn lanes, sight distance improvements, Knox Box entry, and on-site perimeter service road). As documented in Section 4.16 (Transportation) and the Trip Generation and VMT Analysis (Appendix H.1), the Project does not generate traffic volumes that would require new or expanded regional roadway facilities. No new access roads, highway interchange upgrades, or regional transportation improvements are proposed that would open new areas to development or materially reduce travel times in a manner that would catalyze secondary growth.

Telecommunications Infrastructure

Fiber service will be provided by Onward via a redundant, carrier-diverse network with independent north and south routes and direct access to the existing Digital 395 fiber network. The system includes 432 strands in three underground conduits, scalable from 1–100 Gbps, with ~6 ms RTT to Los Angeles. The fiber tie-in location is onsite, providing direct integration with the facility's network architecture.

Table 5-3. Infrastructure Components and Growth-Inducing Potential

Infrastructure Component	Designed For	Surplus Capacity for Off-Site Development?	Growth-Inducing?
Customer-Dedicated 115 kV Substation	Project 99 MW load only	No — load-specific sizing; no grid export	No
Overhead 115 kV Subtransmission Lines (~0.5–2 mi)	Project electrical interconnection to SCE POI	No — no new transmission capacity for 3rd parties	No
Ancillary Rooftop/Canopy PV Solar	On-site demand offset only	No — no export or off-site supply	No
Emergency Backup Generators (99 MW)	On-site backup during utility outage	No — no grid connection or export	No
Water/Sewer Annexation (Inyokern CSD)	Project water/wastewater needs	No — Applicant-funded, project-specific sizing	No
Site Access Improvements (SR-178 / Brown Rd)	Safe site access and circulation	No — limited to project-specific improvements	No
Solid Waste Service	Construction debris and operations waste	No — existing Kern County franchise infrastructure	No

Source: Site Plan (Appendix A.1); Socioeconomic Analysis (Appendix J.2); Section 4.11, 4.15, 4.16 of this Application.

Level of Significance: Less than Significant. All Project infrastructure components are sized and designed to serve on-site Project demands and are Applicant-funded. No infrastructure extension would create surplus capacity for unrelated future development. No mitigation is required.

5.3.4 Land Use Consistency and Removal of Growth Barriers

A project may be growth-inducing if it requires approvals that eliminate a regulatory constraint on development, removes a physical barrier to growth, or establishes a precedent for land use changes that enables additional unplanned development. The analysis below evaluates whether the Project removes growth barriers in the context of adopted land use plans for the Inyokern area.

Consistency with Adopted Land Use Plans

As documented in Section 4.11 (Land Use and Planning), the Project Site has a Kern County General Plan Land Use Element designation of Service Industrial/Flood Hazard and a zoning designation of M-2 PD (Medium Industrial, Precise Development Combining). The M-2 zone district expressly permits industrial uses of the type proposed and does not require a general plan amendment, zone change, or variance. The Project is also located within the Inyokern Specific Plan area, which designates the Project Site for industrial/commercial development consistent with the Project. Development of the Project on land already designated and zoned for industrial use does not constitute removal of a regulatory barrier to growth; the Project would not create a precedent for land use changes in adjacent areas not already designated for industrial development.

The Project does require a Conditional Use Permit (CUP) and related Specific Plan Amendment (SPA) and Lot Line Adjustment (LLA) approvals from Kern County, which are addressed in Section 4.11 of this Application. The SPA's sole purpose is to eliminate a future 90-foot right-of-way secondary collector reservation established by the Inyokern Specific Plan Circulation Element on APNs 084-010-43, -44, -45, and -48. As documented in the SPA application, this future road reservation will never be constructed due to existing development to the north, Navy-owned property constraints, and the proposed data center use to the south of the corridor; accordingly, the SPA removes an outdated circulation element that has no functional purpose. This SPA does not constitute removal of a meaningful physical barrier to development on adjacent parcels, does not rezone any land, and does not create new access to previously inaccessible areas. The CUP is limited in scope to the Project's proposed use pursuant to Kern County Code Section 19.08.085 and does not establish a zoning change or precedent that would enable additional industrial development on lands not already designated for such use.

Flood Hazard Overlay

The Project Site is in an area of Flood Hazard overlay designation reflecting its location within a Special Flood Hazard Zone A according to FEMA Flood Insurance Rate Map (FIRM) mapping. Flood mitigation is addressed through the site grading plan and a Letter of Map Revision (LOMR) process described in Section 4.11. The LOMR, if granted, would remove the flood hazard designation for the Project Site only, based on site-specific grading and drainage improvements. This Project-specific flood mitigation is not expected to remove a physical barrier to development on adjacent properties or to enable additional development outside the Project boundary. The LOMR applies solely to the Project's graded footprint and does not constitute a regional drainage infrastructure improvement that would reduce flood risk for surrounding parcels.

Airport Influence Area

The Project Site is located approximately 0.4 mile southeast of Inyokern Airport (KIYK) and within Zone C of the Kern County Airport Land Use Compatibility Plan (ALUCP). As documented in Section 4.11, all proposed Project structures are less than 35 feet above finished grade, well below the FAR Part 77 Horizontal Surface limit at the site. No FAA Form 7460-1 notice is required. Airport land use compatibility review will be conducted by Kern County Planning under the County's adopted alternative process (the ALUC was disestablished in 1994). The Project does not propose structures, operations, or land uses that would conflict with airport land use compatibility policies or that would set a precedent for incompatible uses within the ALUCP influence area.

Level of Significance: Less than Significant. The Project is consistent with adopted industrial land use designations and does not remove a regulatory or physical barrier to unplanned growth. No mitigation is required.

5.3.5 Transportation and Access-Induced Growth

Transportation infrastructure improvements can be growth-inducing if they significantly reduce travel times to previously inaccessible areas, open rural or undeveloped land to development, or require new regional access facilities that would enable development beyond the project site. The analysis below draws on Section 4.16 (Transportation) and the Trip Generation and Vehicle Miles Traveled Analysis (Appendix H.1).

As documented in Section 4.16 and Table T-001, Project construction is estimated to generate approximately 267 average daily trips, including 40 AM and 40 PM peak-hour trips. Project operations is estimated to generate approximately 241 average daily trips, with 23 AM and 14 PM peak-hour trips. Neither phase exceeds the Kern County 50-trip peak-hour threshold for level of service analysis. The existing volume-to-capacity ratio on SR-178 within the study area is approximately 0.22, well below the 0.80 threshold that would require mitigation. The Project's calculated VMT of 27.13 is approximately 30.37 percent below the regional average VMT of 36.85, and below the applicable OPR CEQA significance threshold of 31.32.

Access to the Project Site is via SR-178 and Brown Road. Any local access improvements will be limited to the Project Site and those necessary for safe site entry and circulation — such as dedicated deceleration lanes, sight distance improvements, and the on-site perimeter service road — and will not extend new roadway corridors into undeveloped areas or create new access points that would enable development on adjacent vacant parcels. No new highway interchanges, arterial extensions, or regional access improvements are proposed.

Level of Significance: Less than Significant. Project-related transportation improvements are limited to project-specific site access modifications. No new regional roadway facilities are proposed that would open undeveloped land to development. No mitigation is required.

5.3.6 Fiscal and Public Service Effects

Projects that impose significant, unmitigated fiscal burdens on public service agencies can create growth-related effects if service agencies must expand capacity to serve the project and that expanded capacity is then available to serve additional development. The fiscal and public services analysis is documented in the Socioeconomic Analysis (Appendix J.2) and Section 4.15 (Public Services). Key findings are summarized below.

Fiscal Contributions

The Project would contribute substantial new assessed value to Kern County, generating estimated illustrative annual property tax revenue of approximately \$5 million to \$9 million per year during operations (based on an illustrative assessed value of \$500 million to \$900 million at the applicable Kern County ad valorem rate under Proposition 13). During construction, the Project would generate approximately \$2.5 million to \$7.4 million in sales and use tax revenue. Applicable local tax allocations would be distributed among Kern County, the Sierra Sands Unified School District (SSUSD), the Kern Community College District, Inyokern CSD, and other applicable Tax Rate Area (TRA) entities, consistent with Kern County assessor TRA allocations.

Public Services — No Capacity Expansion Required

Because the Project does not include residential development and the permanent operations workforce is limited to approximately 30 to 60 employees, the Project would not generate significant new demand on population-based public services including parks, libraries, schools, or community facilities. Key public service conclusions from Section 4.15 are as follows:

- **Fire Protection:** The Project would implement a Fire Protection Plan in coordination with Kern County Fire Department (KCFD), provide on-site life-safety systems, fire sprinklers, and fire access roads, and fund any fire-flow or access improvements required for the Project. No new fire stations or permanent service capacity expansion is required.
- **Law Enforcement:** The Kern County Sheriff's Office (KCSO) Ridgecrest Substation provides regional law enforcement coverage. Controlled access, 24/7 security monitoring, and construction traffic management would reduce calls-for-service. No expansion of KCSO facilities is required.
- **Emergency Medical Services:** Liberty Ambulance provides 24/7 emergency transport service to the Inyokern area. Ridgecrest Regional Hospital (approximately 10.2 miles east) is the nearest emergency department. The small Project workforce and on-site first-aid/AED coverage would limit incremental EMS demand. No expansion of EMS infrastructure is required.
- **Schools (Sierra Sands Unified School District):** Because the Project does not include residential development, project-related enrollment at SSUSD is projected to be negligible in all grade groupings during both the 48-month construction schedule and during operations (Socioeconomic Analysis, Section 4.4). The Project would pay all applicable statutory school facilities fees at time of building permit issuance pursuant to California

Education Code Section 17620 and Government Code Section 65995. Planning-level fee estimates range from approximately \$624,000 to \$1,044,000, based on a Level 1 commercial/industrial fee rate of \$0.78 to \$0.87 per square foot applied to an estimated chargeable gross floor area of 800,000 to 1,200,000 square feet. The chargeable area exceeds the 238,000-square-foot data center building footprint because school impact fees under California Education Code Section 17620 are assessed on the total assessable gross floor area of all structures subject to a building permit, which for a phased industrial campus of this type includes all enclosed structures, mechanical enclosures, and support buildings constructed across all permitted phases of development. Final fee obligations will be determined by SSUSD at the time of building permit issuance based on actual permitted square footage.

- **Recreational Facilities:** The Project does not include residential uses, does not generate a permanent population increase, and does not include recreational facilities. The Project's permanent workforce of approximately 30 to 60 employees would not increase the use of existing neighborhood or regional parks — including Inyokern County Park (0.8 miles northeast), Red Rock Canyon State Park (26 miles south), or BLM-managed public lands — such that substantial physical deterioration of those facilities would occur or be accelerated. The Project does not include recreational facilities and would not require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.
- **Solid Waste and Recycling:** No new disposal capacity is required. Operations waste would be managed through existing Kern County franchise infrastructure.
- **Telecommunications.** Fiber service will be provided by Onward via a redundant, carrier-diverse network with independent north and south routes and direct access to the existing Digital 395 fiber network. The system includes 432 strands in three underground conduits, scalable from 1–100 Gbps, with ~6 ms RTT to Los Angeles. The fiber tie-in location is onsite, providing direct integration with the facility's network architecture.
- The Applicant will be required to pay its proportional share of the local costs of infrastructure improvements required to service such development pursuant to MM 4.15-3 (*Public Services and Recreation*) as required by the Kern County General Plan and the Inyokern Specific Plan.

The Project's fiscal contributions are projected to exceed the Project's incremental public service demands during operations, resulting in a net positive fiscal position for the applicable taxing entities. This positive fiscal relationship does not create a growth-inducing effect because the fiscal contributions do not provide surplus public service capacity that would enable or attract additional development.

Level of Significance: Less than Significant. The Project does not require expansion of public service facilities and does not create surplus public service capacity that would induce additional development. The Project's fiscal contributions are projected to net positively for applicable taxing entities. No additional mitigation is required.

5.3.7 Environmental Justice Considerations

CEC Appendix B, Section (g)(7)(B)(xiii) requires a discussion of impacts to environmental justice (EJ) populations by technical area and whether any impacts would disproportionately affect EJ populations. As documented in Section 4.19 (Environmental Justice) and the Environmental Justice Analysis (Appendix J.2), the Inyokern CDP has a CalEnviroScreen 4.0 overall percentile score of 66, which is below the 75th percentile threshold for disadvantaged community designation under CalEPA criteria (OEHHA, 2022; 2026). The community is not designated as a disadvantaged community under SB 535 criteria. However, community vulnerability indicators are noteworthy: the Inyokern poverty rate (approximately 17.5 percent; ACS 2023 five-year estimates) and unemployment rate (12.4 percent) are elevated relative to Kern County (18 percent poverty; 8.9 percent unemployment) and the United States (12.1 percent poverty; 2.9 percent unemployment). CalEnviroScreen 4.0 health indicators show above-average asthma (79th statewide percentile) and cardiovascular disease (96th statewide percentile) emergency department visit rates. These conditions inform community sensitivity but do not demonstrate that the Project causes or contributes to those pre-existing conditions.

The Project's EJ analysis of growth-inducement results in the following conclusions, consistent with Section 4.19 and Table SEJ-7 of the Socioeconomic Analysis:

- **Population and Housing:** The Project would not remove housing, displace residents, or generate substantial permanent population growth. The Project's EJ effect for Population and Housing is characterized as "None" based on no displacement and no growth-inducing mechanism (Socioeconomic Analysis, Table SEJ-7).
- **Economic Benefits:** The Project's construction-period employment — approximately 1,223 direct construction job-years — could provide economic benefit to local and regional workers, including those in the Inyokern community. Given the community's elevated unemployment rate (12.4 percent), access to construction employment may provide a beneficial effect for local workers, though the Project cannot guarantee local hiring as a condition of approval.
- **Infrastructure:** Project-specific utility improvements funded by the Applicant and sized to serve Project demands would not disproportionately burden Inyokern CSD ratepayers, the SCE and electrical rate payers, or other community members. The Applicant will be required to pay its proportional share of the local costs of infrastructure improvements required to service such development pursuant to MM 4.15-3 (*Public Services and Recreation*) as required by the Kern County General Plan and the Inyokern Specific Plan.
- **Cumulative Effects:** The Project would not make a cumulatively considerable contribution to population growth, housing demand, or a burden on public services in a manner that would disproportionately affect the Inyokern community.

Overall, the Project's growth-inducing effects, to the limited extent they exist, would not disproportionately affect environmental justice populations in the Inyokern area.

Level of Significance: Less than Significant. The Project does not result in a disproportionate adverse growth-related effect on environmental justice populations. No mitigation is required.

5.4 Cumulative Growth-Inducing Impacts

CEQA requires evaluation of whether the Project's growth-inducing effects, in combination with past, present, and reasonably foreseeable future projects in the region, would result in a cumulatively considerable contribution to cumulative growth that could cause significant environmental effects. The cumulative setting for this analysis is the Indian Wells Valley, encompassing Inyokern, Ridgecrest, and the broader eastern Kern County desert region.

The Indian Wells Valley has historically experienced slow, incremental population growth driven by activity at Naval Air Weapons Station (NAWS) China Lake, energy development, and supporting regional services. The California Department of Finance (DOF) projects continued slow population growth for Kern County over the near-term planning horizon, consistent with regional historical trends. The Kern County General Plan and Inyokern Specific Plan govern the pace and location of industrial and residential development in the Project vicinity and represent the adopted framework against which cumulative growth is assessed.

The Project's contribution to cumulative growth-inducing effects would be limited because:

- Construction-related population effects are temporary and small (0 to 12 persons at peak relocation estimate), are already accounted for in regional planning projections, and would not persist after construction is complete.
- The Project's permanent workforce of 30 to 60 employees would not generate discernible new household formation or housing demand at the regional scale, and would not materially contribute to cumulative population growth.
- The Project's infrastructure (electrical, water, sewer, transportation) is sized to serve the Project only and would not create surplus capacity enabling cumulative development beyond the Project site.
- The Project is consistent with adopted land use designations and does not establish a precedent for land use changes that would accelerate development on adjacent parcels.
- The Project's fiscal contributions are projected to positively support public service capacity, reducing rather than exacerbating any cumulative burden on public agencies serving the Indian Wells Valley.
- The Applicant will be required to pay its proportional share of the local costs of infrastructure improvements required to service such development pursuant to MM 4.15-3 (*Public Services and Recreation*) as required by the Kern County General Plan and the Inyokern Specific Plan.

No reasonably foreseeable projects in the Indian Wells Valley are identified that would, in combination with the Project, create cumulatively significant growth-inducing effects beyond

what is anticipated in adopted regional plans. This determination is based on a review of Kern County Planning and Natural Resources Department active application records, Eastern Kern Air Pollution Control District (EKAPCD) permit application filings, and publicly available project-level information for the Indian Wells Valley sub-region. No projects of comparable industrial scale with overlapping construction schedules have been identified in the Inyokern area that would materially compound the Project's already-limited growth-inducing effects. The Project's incremental contribution to cumulative growth-inducing impacts is not cumulatively considerable.

Cumulative Level of Significance: Less than Significant. The Project would not make a cumulatively considerable contribution to significant cumulative growth-inducing impacts. No mitigation is required.

5.5 Summary of Growth-Inducing Impact Findings

Table 5-4 below summarizes the growth-inducing impact conclusions for each analytical category evaluated in this section.

Table 5-4. Summary of Growth-Inducing Impact Findings

Growth-Inducing Category	Key Findings	Level of Significance
5.3.1 Population Growth and Housing	Temporary construction workforce (avg. 300/mo; peak ~592); 0–2% household relocation (~0–12 persons); permanent workforce of 30–60 employees; no residential component; no housing displacement.	Less than Significant
5.3.2 Economic Growth and Secondary Development	Construction payroll ~\$110M–\$170M; total construction spending ~\$300M–\$600M; permanent operations payroll ~\$3M–\$12M/yr; consistent with M-2 industrial designation; no catalyst for unplanned secondary development.	Less than Significant
5.3.3 Infrastructure Extension	All infrastructure (electrical, water, sewer) sized and funded by Applicant to serve Project only; no surplus capacity for off-site development; subtransmission line is customer-dedicated and overhead.	Less than Significant
5.3.4 Land Use Consistency / Growth Barriers	Project consistent with GP Service Industrial designation and M-2 zoning; CUP does not remove constraints on adjacent parcels; flood	Less than Significant

Growth-Inducing Category	Key Findings	Level of Significance
	LOMR is site-specific; ALUCP consistency maintained.	
5.3.5 Transportation / Access-Induced Growth	Construction ~267 ADT / 40 peak hr trips; operations ~241 ADT / 23 AM / 14 PM peak hr trips; VMT 27.13 (30.37% below regional avg.); no new roadway corridors proposed.	Less than Significant
5.3.6 Fiscal and Public Service Effects	Estimated \$5M–\$9M/yr property tax; \$2.5M–\$7.4M construction sales tax; no expansion of fire, police, EMS, or school facilities required; school impact fees ~\$624K–\$1.04M; and Applicant funding of impacts to public services per MM 4.15-3.	Less than Significant
5.3.7 Environmental Justice	Inyokern CDP CalEnviroScreen 4.0 score = 66 (not DAC); elevated poverty/unemployment; Project provides construction employment benefit; no disproportionate growth-related adverse effect.	Less than Significant
5.4 Cumulative Growth-Inducing	Small, temporary construction population effects; 30–60 permanent employees; project-specific infrastructure; consistent with regional plans; not cumulatively considerable.	Less than Significant

Source: This Application; Socioeconomic Analysis (Appendix J.2); Environmental Justice Analysis (Appendix J.2); Sections 4.11, 4.14, 4.15, 4.16, and 4.19 of this Application.

5.6 Conclusion

Based on the Project setting, the Socioeconomic Analysis and Environmental Justice Analysis prepared for the Project, and the design and operational features incorporated into the Project, the Project is not expected to result in significant growth-inducing impacts.

The Project is consistent with the adopted industrial land use designations and zoning governing the Project Site under the Kern County General Plan, the Kern County Zoning Ordinance, and the Inyokern Specific Plan. The Project does not include residential development and would not displace residents or remove housing. The Project’s temporary construction workforce is expected to produce minimal household relocation (0 to 2 percent of peak workforce, or approximately zero

to 12 persons), and the permanent operations workforce of approximately 30 to 60 employees is insufficient to generate measurable population growth, housing demand, or material changes to regional development patterns.

All Project infrastructure components — including the customer-dedicated electrical substation and subtransmission line, water and sewer annexation into Inyokern CSD, and site access improvements — are sized and designed to serve on-site Project demands only and are fully Applicant-funded. No infrastructure component would create surplus capacity for unrelated future development. The Project is consistent with planned land use patterns and does not remove a regulatory or physical barrier to development that would enable unplanned growth in the Inyokern area.

The Project's fiscal contributions are projected to net positively for applicable taxing entities, including generating an estimated \$5 million to \$9 million in annual property tax revenue and \$2.5 million to \$7.4 million in construction-period sales and use tax. These contributions would support public service capacity in the Indian Wells Valley without requiring expansion of fire, law enforcement, school, or EMS facilities. The Applicant will be required to pay its proportional share of the local costs of infrastructure improvements required to service such development pursuant to MM 4.15-3 (*Public Services and Recreation*) as required by the Kern County General Plan and the Inyokern Specific Plan.

The Project's growth-inducing effects would not disproportionately affect environmental justice populations in the Inyokern area. The Project is not expected to make a cumulatively considerable contribution to regional growth-inducing impacts. Accordingly, growth-inducing impacts associated with construction, operation, and maintenance of the Project would be less than significant, and no mitigation is required.

SECTION 6.0 - ALTERNATIVES

This section describes the range of reasonable alternatives considered for the RB Inyokern Data Center (RBIDC) backup power system, evaluates their comparative engineering, economic, and environmental merits, and explains why the Proposed Project represents the most practical and efficient configuration to meet the Project objectives while avoiding or substantially lessening significant environmental effects.

This section is prepared in compliance with California Code of Regulations, Title 20, Appendix B, Section (f), which requires a discussion of the range of reasonable alternatives to the project or to the location of the project—including the No Project Alternative—that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Consistent with Public Resources Code Section 25540.6(b), this section also discusses the applicant's site selection criteria, any alternative sites considered for the project, and the reasons why the applicant chose the Proposed Project site. This section is further prepared consistent with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (14 CCR § 15126.6), which require that an alternatives analysis be sufficiently detailed to allow meaningful evaluation, comparison, and selection among options.

RBIDC is designed as a Tier III data center campus facility with redundant Uninterruptible Power Supply (UPS) and emergency generator systems to maintain high-quality power and continuous operation during utility interruptions. The Proposed Project includes forty (40) Caterpillar 3516E diesel-fired emergency standby generators, each rated at 3,000 ekW (3,750 kVA) at 13.8 kV, providing 120 MW of total installed backup generation capacity. Each generator is equipped with a Johnson Matthey Compact SCRT (DPF+SCR) exhaust aftertreatment system, bringing post-control emissions to levels consistent with U.S. EPA Tier 4 Final standards. Generators operate only during emergency utility outages and limited testing and maintenance. The Project is not designed to export electricity to the transmission or distribution grid. On-site fuel storage consists of six (6) 100,000-gallon diesel storage tanks (600,000 gallons total), providing extended operational duration independent of fuel deliveries during emergency scenarios. Utility service will be provided through existing infrastructure, and the Project will be annexed into the Inyokern Community Services District (CSD) for domestic water and sanitary sewer service. Stormwater controls include on-site retention and SWPPP implementation consistent with applicable requirements. The data center campus encompasses approximately 238,000 square feet of building area on a 50-acre site, developed in three phases over an approximately 48-month construction period beginning in 2027. Operations will employ approximately 10 workers per shift across 3 shifts per day (approximately 30 employees per day total).

6.1 Project Purpose and Objectives

A meaningful alternatives analysis must be grounded in a clear statement of project purpose and objectives. Under CEQA Guidelines Section 15124, the project description must include a statement of objectives, and the alternatives analysis under Section 15126.6 must evaluate whether alternatives can feasibly attain “most of the basic objectives” of the project. Under Appendix B, Section (f), alternatives must be evaluated for their ability to avoid or substantially lessen significant project effects.

The primary objectives of the Proposed Project are as follows:

- Provide a secure, high-availability Tier III data center campus capable of continuous operations in support of regional critical infrastructure, defense-adjacent commercial customers, and related enterprises in the Inyokern/China Lake area.
- Ensure uninterrupted facility operations during utility outages of extended duration by means of on-site emergency backup generation with sufficient on-site fuel storage (600,000 gallons) to sustain operations for multiple days independent of pipeline or delivery infrastructure.
- Minimize the Project footprint and land disturbance by utilizing an existing developable site with access to existing utilities, roads, and transmission infrastructure.
- Avoid the creation of new export-capable generation capacity connected to the bulk transmission system, consistent with Project design intent.
- Achieve compliance with all applicable CEC, Kern County, local, state, and federal requirements, including air quality, noise, hazardous materials, and water resources standards. Associated Kern County entitlements include a Conditional Use Permit (CUP) to allow data center use in the M-2 Zone District pursuant to Kern County Code 19.08.085, a Specific Plan Amendment (SPA) to eliminate the future 90-foot secondary collector road reservation created by the Inyokern Specific Plan, and a Lot Line Adjustment (LLA) to configure the project parcels.
- Support regional employment and economic development while minimizing impacts to surrounding land uses, biological resources, air quality, environmental resources, and community character.

6.2 Alternatives Evaluation Criteria

Alternatives were evaluated against the following criteria:

- **Reliability and Redundancy:** Ability to provide N+1 redundant emergency power consistent with Tier III/IV data center standards and support extended utility outage durations of multiple days without external fuel or energy supply.
- **Technical and Commercial Feasibility:** Availability as a commercially proven technology at the required scale (120 MW aggregate backup capacity), with established permitting pathways and demonstrated operational track records.
- **Site Compatibility:** Compatibility with the Proposed Project Site, including constructability, access, on-site fuel storage feasibility, and existing utility infrastructure.
- **Environmental Performance:** Potential to avoid or reduce significant environmental impacts across environmental resource matters including, but not limited to, air quality, noise, biological resources, hazardous materials, and water resources.

- **Operational Practicality:** Consistency with safety requirements, long-term operational demands (including NFPA 110 Level 1 compliance), maintenance accessibility, and emergency response considerations.
- **Economic Feasibility:** Capital and operational costs within a range that does not render the alternative economically infeasible for the Project as proposed.

Alternatives that did not satisfy these criteria were eliminated from further consideration with supporting rationale documented below.

6.3 Site Selection Criteria and Process

In accordance with Public Resources Code Section 25540.6(b) and Appendix B, Section (f)(1), this section describes the site selection criteria and process used to identify and evaluate the Proposed Project site and alternative sites considered.

6.3.1 Proposed Project Site

The Proposed Project Site is located in the community of Inyokern, Kern County, California, on West Inyokern Road (State Route 178) between Browns Road and U.S. Route 395. The site encompasses approximately 50 acres and will accommodate an approximately 238,000-square-foot data center campus. The primary project parcels are identified as Kern County Assessor Parcel Numbers 084-010-43, -44, and -45 (portion), with the proposed 200' × 200' point of interconnection located on APN 084-010-48 via a proposed 30' subtransmission line easement corridor. The site is zoned M-2 PD (Medium Industrial, Precise Development Combining) and is located within an area designated for industrial and infrastructure development consistent with the Proposed Project. The applicant (R & L Capital, Inc.) acquired interest in the property in April 2018. The site is currently undeveloped (present land use: undeveloped land, M-2). Surrounding land uses are undeveloped to the north and east (with U.S. Route 395 to the east), a gas station and convenience store to the south along SR-178, and Browns Road to the west. The Inyokern Airport is located to the northwest.

6.3.2 Site Selection Criteria

Site candidates were evaluated against the following criteria:

- Sufficient acreage in a contiguous, developable configuration to accommodate the full data center campus, backup generation infrastructure, six large-volume fuel storage tanks, stormwater management, and required setbacks.
- Proximity to existing electric transmission infrastructure capable of providing primary utility service at 115 kV/34.6 kV without requiring major new off-site transmission construction.
- Access to water and wastewater services, or feasibility of annexation into a local service district, without requiring new standalone utility systems.

- Access to paved public roadways adequate for construction-phase heavy equipment delivery (including large generator and transformer deliveries) and long-term operational access.
- Compatibility with surrounding land uses and applicable general plan designations and zoning.
- Minimization of conflicts with sensitive biological resources, cultural resources, agricultural lands, and visual resources.
- Absence of or manageable exposure to geological hazards, flood zones, and wildfire risk.
- Availability of existing or accessible telecommunications and fiber infrastructure.

6.3.3 Alternative Sites Considered

During the Project planning phase, alternative site locations in the Inyokern and eastern Kern County area were evaluated. The following categories of alternative sites were considered and screened prior to selection of the Proposed Project Site:

- **Parcels Along the US-395 Corridor South and East of Inyokern:** Multiple parcels in the US-395 corridor southeast of Inyokern were evaluated. While some offered comparable acreage, these sites lacked direct proximity to the existing 115 kV transmission infrastructure accessible at the Proposed Project Site. Extension of transmission service to these locations would require new high-voltage line construction across undisturbed desert terrain, introducing additional land disturbance, biological resource surveys and mitigation along new transmission corridors, and significant additional permitting burden and cost. None of these alternative sites offered a clear feasibility or environmental advantage over the Proposed Project Site. These sites were not carried forward.
- **Sites in the Vicinity of the China Lake Naval Air Weapons Station Boundary:** Parcels in proximity to the Naval Air Weapons Station China Lake boundary northeast of Inyokern were assessed. Access and security constraints associated with proximity to an active federal military installation, combined with potential conflicts with military airspace, flight operations, and electromagnetic spectrum coordination requirements, rendered these locations infeasible for commercial data center development requiring unrestricted construction and operational access. These sites were not carried forward.
- **Parcels Within the Ridgecrest Urban Core:** Parcels within the City of Ridgecrest were reviewed. While utility infrastructure is generally available within the Ridgecrest city limits, contiguous land area at sufficient scale for a 120 MW backup generation facility with six large-volume fuel storage tanks is limited. Compatibility with surrounding commercial and residential land uses would present challenges for a facility with visible generator infrastructure, associated operational noise, and ULSD fuel delivery logistics. Permitting complexity under city jurisdiction and land acquisition costs were also higher relative to the Proposed Project Site. These sites were not carried forward.

6.3.4 Rationale for Selection of the Proposed Project Site

The Proposed Project Site on APNs 084-010-43, -44, and -45 (portion) was selected because it satisfies each of the site selection criteria at a level not matched by the alternative sites evaluated:

- The site provides a developable area of sufficient size to accommodate the full data center campus, 40-unit generator yard, six 100,000-gallon fuel storage tanks, stormwater infrastructure, and required setbacks within a compact, efficient layout that minimizes grading and land disturbance, as shown on Conceptual Site Plan No. 160268-05-v3.
- Existing 115 kV transmission infrastructure in the Inyokern area enables utility service through a customer-dedicated 115/34.6 kV substation (up to 100 MVA transformer capacity) and a 30' subtransmission line easement corridor to the point of interconnection on APN 084-010-48, without requiring new high-voltage transmission line construction across undisturbed lands.
- Annexation into the Inyokern CSD provides a defined, regulated pathway for domestic water, wastewater, stormwater and sanitary sewer service. A proposed on-site well location is also shown on the site plan for supplemental process water as needed.
- Road access via SR-178 and US-395 is adequate for construction-phase delivery of large equipment (including generator sets, transformers up to 100 MVA, and fuel storage tanks) and long-term fuel delivery logistics.
- The site and surrounding land uses are compatible with industrial and infrastructure development (M-2 PD zoning). Surrounding uses are undeveloped to the north and east, with a gas station/convenience store to the south along SR-178. No prime or unique farmlands, critical sensitive habitat, or known significant cultural resource sites have been identified within the Project footprint. The Inyokern Airport, located approximately 0.5 miles to the northwest, was evaluated for airspace compatibility; the data center campus does not involve structures of height or plume characteristics that would conflict with airport operations or applicable FAA notification thresholds under 14 CFR Part 77, though the applicant's airspace analysis consultant should confirm FAA Form 7460-1 requirements for the tallest proposed structures.

No alternative site was identified that would substantially reduce environmental impacts while maintaining feasibility and meeting the Project's objectives. As part of entitlement for the Proposed Project Site, the applicant has filed a Specific Plan Amendment (SPA) with Kern County to eliminate a future 90-foot secondary collector road reservation created by the Inyokern Specific Plan that bisects the project parcels. The stated basis for the SPA is that the road will never be constructed due to existing development to the north, Navy-owned property constraints, and the proposed industrial use to the south. Elimination of this road reservation is necessary to achieve the compact, uninterrupted site layout required by the Project. This SPA requirement further confirms that the Proposed Project Site — despite requiring this entitlement action — is the most feasible available location, as no alternative site in the Inyokern area offered comparable infrastructure access without equal or greater entitlement burden. The SPA filing is identified in

the Kern County applications in conjunction with Lot Line Adjustment No. 28-25 and a Conditional Use Permit (CUP case number to be assigned upon filing with Kern County Planning).

6.4 Backup Power Generation Technology Alternatives

RBIDC evaluated alternative backup generation technologies to determine whether a feasible option existed that could meet operational requirements at the required scale while reducing or avoiding significant environmental impacts. Each technology alternative was assessed against the evaluation criteria in Section 6.2.

6.4.1 Proposed Project: Diesel-Fired Generation with DPF/SCR Aftertreatment

The Proposed Project utilizes forty (40) Caterpillar 3516E diesel generators, each rated at 3,000 kW, for a total installed backup capacity of 120 MW. Each unit is certified by the U.S. EPA for Emergency Stationary use under Tier 2 standards (Performance Number EM4718-02). Importantly, each generator is equipped with a Johnson Matthey Compact SCRT exhaust aftertreatment system consisting of a Diesel Particulate Filter (DPF) and Selective Catalytic Reduction (SCR) unit, which reduces emissions to levels consistent with U.S. EPA Tier 4 Final standards. The post-control emissions performance, as documented by Johnson Matthey for this specific engine/aftertreatment combination, is as follows:

Pollutant	Pre-Control (Tier 2, g/bhp-hr)	Post-Control (DPF+SCR, g/bhp-hr)	Reduction	Tier 4F Standard (g/bhp-hr)
NO_x	5.63	0.50	91%	0.50
CO	1.20	0.24	80%	2.60
HC	0.06	0.018	70%	0.14
PM	0.06	0.009	85%	0.02

Source: Johnson Matthey cSCRT Full Load Emissions Data, Drawing No. 202-C0039989-B (October 2025).

An important design consideration is that NFPA 110 Tentative Interim Amendment 22-1 (effective May 8, 2024) expressly prohibits EPA-mandated inducement engine shutdowns due to emissions system controls on Tier 4 certified engines with SCR in permanent Level 1 applications. The use of Tier 2-certified engines with aftertreatment—rather than Tier 4-certified engines with factory-

integrated SCR—is specifically responsive to this NFPA 110 TIA requirement and preserves the reliability of the backup generation system by eliminating the risk of engine shutdown triggered by emissions controls during an actual emergency.

Sound-attenuated generator enclosures provide an estimated 40–45 dBA insertion loss, resulting in an estimated operating sound level of approximately 60–70 dBA at 7 meters (23 feet) under full load, compared to the unenclosed baseline of 105–110 dBA at the same distance.

Each unit consumes approximately 204 gallons per hour at 100% load. The six 100,000-gallon on-site storage tanks (600,000 gallons total) provide on-site fuel autonomy for extended emergency operations independent of external delivery logistics.

6.4.2 Natural Gas-Fired Backup Generation

Engineering Assessment: Natural gas-fired emergency standby generators are a commercially available technology used in some large-facility backup power applications. However, reliance on continuous pipeline gas delivery introduces a fundamental vulnerability during the emergency scenarios the RBIDC backup system is designed to address. Regional disasters, seismic events, and extended utility outages—the very conditions requiring backup power activation—are also the conditions under which natural gas pipeline service is most likely to be curtailed or disrupted. Unlike the 600,000 gallons of ULSD stored on-site, pipeline-dependent natural gas cannot be stockpiled to ensure extended operational duration independent of utility infrastructure. The Tier III resiliency objectives of this facility cannot be reliably met with natural gas generation.

Air Quality Comparison: Natural gas generators produce lower NO_x per unit of fuel energy on a raw (pre-control) basis compared to diesel. However, the post-control performance of the proposed diesel generators equipped with Johnson Matthey DPF/SCR systems meets or exceeds the emissions performance achievable from natural gas generators. At full load with DPF/SCR aftertreatment, NO_x emissions are reduced to 0.50 g/bhp-hr, equivalent to the EPA Tier 4 Final standard. Natural gas generators at this scale operating under EKAPCD permitting requirements would face comparable or equivalent air quality permitting scrutiny. The air quality advantage of natural gas over the proposed configuration is minimal to none when DPF/SCR aftertreatment is applied to the diesel units.

Infrastructure and Environmental Considerations: Natural gas-fired generation at this location would require new or upgraded gas service infrastructure, potentially including pipeline extensions to the Project Site from the nearest adequate supply point. Such infrastructure would introduce additional environmental review, land disturbance, biological resource surveys and mitigation, and permitting requirements along the pipeline corridor. These off-site linear infrastructure impacts are not present with the on-site diesel fuel storage approach.

Natural gas-fired backup generation was determined to be less reliable for the intended mission-critical resiliency use and was not selected.

6.4.3 Battery Energy Storage Systems (BESS) as Primary Backup

Battery energy storage (BESS) technology is incorporated into the Proposed Project as part of the UPS system (54 units at 2.5 MVA/15-minute rating, supported by 216 battery racks at 600VDC/2,500A) to provide instantaneous power ride-through and power quality control during the transition to generator operation. This section evaluates battery-only backup (without diesel generators) as an alternative primary backup technology for extended outages.

Engineering Assessment: A BESS configuration capable of supporting full RBIDC facility operations at 120 MW for extended outage durations of multiple days would require energy storage capacity of thousands of megawatt-hours. For reference, the largest standalone BESS installations currently operational in the United States are in the range of 200–400 MWh—one to two orders of magnitude below what would be required for this application. The technology does not offer the operational certainty required for mission-critical extended backup power at this scale.

Safety, Permitting, and NFPA 110 Considerations: Large-format lithium-ion battery systems at this scale introduce fire risk, thermal runaway potential, and hazardous materials handling requirements that exceed those associated with the diesel generator approach. Facilities of this capacity require extensive fire suppression systems, compliance with California Fire Code and NFPA 855, and specific separation and ventilation requirements. These requirements would introduce additional land area, construction impacts, and permitting complexity.

Economic Considerations: The capital cost of a BESS system scaled to replace diesel generators for extended multi-day backup at 120 MW would be substantially higher than the diesel generator approach—potentially by an order of magnitude or more—rendering this alternative economically infeasible for this application at this time.

A battery-only backup configuration was determined to be technically and economically infeasible for meeting Project objectives at the required scale.

6.4.4 Hydrogen Fuel Cell Backup Generation

Engineering Assessment: Hydrogen fuel cell systems capable of sustained full-facility backup power at 120 MW for extended outage durations are not commercially proven at the required scale. On-site hydrogen storage at this scale introduces substantial safety and permitting challenges, including compressed or cryogenic hydrogen storage, explosion risk, and specialized fire suppression requirements. Hydrogen delivery logistics in the eastern Kern County area are not established at the volumes required.

Environmental Considerations: Green hydrogen produced via electrolysis from renewable power offers the potential for low-lifecycle-emissions backup power, but this pathway is not commercially viable at the required scale. Most commercially available hydrogen remains gray hydrogen (natural gas reformation), which carries significant lifecycle greenhouse gas emissions and would not represent a clear environmental improvement over the proposed diesel-with-aftertreatment configuration.

Hydrogen fuel cell backup generation was screened out as not commercially proven at the required scale.

6.4.5 Tier 4 Final-Certified Engines Without Aftertreatment

An alternative using EPA Tier 4 Final-certified engines without external aftertreatment was evaluated. While Tier 4 Final-certified engines achieve lower emissions through factory-integrated combustion and SCR controls, NFPA 110 TIA 22-1 (effective May 8, 2024) expressly prohibits EPA-mandated inducement engine shutdowns due to SCR-related emissions system controls in permanent Level 1 applications. Factory-integrated Tier 4 Final engines with SCR are subject to these inducement shutdowns by design, creating an unacceptable reliability risk for mission-critical backup power. The Proposed Project's approach—Tier 2-certified base engines with externally applied DPF/SCR aftertreatment that is not subject to EPA inducement shutdown protocols—achieves equivalent post-control emissions performance while preserving full NFPA 110 Level 1 compliance and operational reliability.

6.4.6 Comparative Technology Summary

The following table summarizes the comparative merits of the backup generation technology alternatives evaluated:

Alternative	Reliability at Scale	Commercial Feasibility	Post-Control Air Quality	Economic Feasibility	NFPA 110 L1 Compliant
Proposed (Diesel Tier 2 + DPF/SCR)	High – on-site fuel, N+1	Fully proven	NOx 0.50 g/bhp-hr (Tier 4F equivalent)	Feasible	Yes
Natural Gas	Moderate – pipeline dependent	Proven; infra gaps	Comparable to Tier 4F pre-control	Comparable	Yes
Battery-Only (BESS)	Low at 120 MW / multi-day	Not proven at scale	Zero direct emissions	Infeasible	No (duration)
Hydrogen Fuel Cell	Low – not proven at scale	Not available at scale	Low if green H ₂	Infeasible	No

Alternative	Reliability at Scale	Commercial Feasibility	Post-Control Air Quality	Economic Feasibility	NFPA 110 L1 Compliant
Tier 4 Final Factory SCR	High but shutdown risk	Proven	NOx 0.50 g/bhp-hr	Comparable	No – TIA 22-1

6.5 Alternative Project Configurations

6.5.1 Reduced-Capacity Backup Generation System

Engineering and Reliability Assessment: The 40-unit generator configuration provides N+1 redundancy across generator groups consistent with Tier III/IV data center standards. Reducing the number of generator sets or degree of redundancy would undermine the fundamental reliability objective that defines the Project’s purpose. A single-unit failure or maintenance outage under a reduced-redundancy configuration could result in loss of critical load during an actual utility outage, which is inconsistent with Tier III design intent and colocation customer uptime requirements.

Environmental Assessment: A reduced-capacity configuration would not produce a meaningful reduction in environmental impacts. Emergency generators, ULSD fuel storage, and associated infrastructure would still be required to maintain resiliency for the facility’s critical loads. The primary effect of reducing capacity would be reduced reliability rather than a commensurate reduction in air quality, noise, hazardous materials, or other environmental impact categories. The 600,000-gallon on-site fuel storage supports extended operational duration; reducing storage would not reduce per-event emission rates but would reduce the facility’s ability to sustain operations during extended emergencies.

Reduced-capacity alternatives were not carried forward.

6.5.2 Distributed vs. Centralized Generator Configuration

An alternative distributing smaller generator sets across the campus rather than concentrating generation in a centralized generator yard was evaluated. A distributed configuration could offer some operational advantages in isolating failures to individual building loads. However, it would require a larger total footprint for distributed generator and fuel storage infrastructure, would increase the number of individual air emission points requiring permitting, and would complicate SWPPP and ULSD hazardous materials management relative to the centralized configuration shown on Conceptual Site Plan 160268-05-v3. The centralized configuration provides a more efficient, controllable, and environmentally compliant arrangement. The distributed alternative was not selected.

6.5.3 Alternative Utility Service Configuration

A standalone on-site well and wastewater treatment system (rather than annexation into Inyokern CSD) was considered. The site plan shows a proposed well location on the project parcel. However, a standalone approach would require groundwater permitting complexity, additional CEQA review of groundwater extraction impacts, and long-term operational and maintenance obligations for systems outside the applicant's core competency. Annexation into the Inyokern CSD provides the more environmentally appropriate and administratively streamlined pathway and does not require new off-site linear infrastructure construction. The standalone utility alternative was not selected as the primary utility service approach.

6.6 No Project Alternative

Under the No Project Alternative, the RBIDC data center campus and associated backup power systems would not be constructed at the proposed Project Site. This alternative is required to be analyzed under CEQA Guidelines Section 15126.6(e) and Appendix B, Section (f).

6.6.1 Environmental Effects of the No Project Alternative

The No Project Alternative would avoid all construction- and operation-phase environmental impacts associated with the Proposed Project, including:

- Air quality impacts from diesel generator testing, maintenance, and emergency operation (post-control NO_x at 0.50 g/bhp-hr per unit, with 40 units);
- Noise impacts from generator operation, HVAC systems, and cooling towers;
- Potential impacts to biological resources from grading, vegetation removal, and site development on APNs 084-010-43, -44, and -45;
- Hazardous materials risks associated with 600,000 gallons of on-site ULSD storage;
- Stormwater quality impacts from impervious surface creation; and
- Visual character change from undeveloped to industrial use at the SR-178/US-395 corridor.

In this respect, the No Project Alternative is the environmentally superior alternative.

6.6.2 Failure of the No Project Alternative to Meet Project Objectives

However, the No Project Alternative would fail to meet the Project's basic objectives. It would not provide the Tier III data center infrastructure required to serve regional critical infrastructure and commercial colocation demand. It would not address the regional need for high-availability computing infrastructure in proximity to the Naval Air Weapons Station China Lake and associated defense-related enterprises. It would not provide the employment benefits associated with the approximately 30 daily operations employees across three shifts, nor the economic development benefits associated with the 238,000-square-foot, three-phase, 48-month

construction program beginning in 2027. Regional demand for data center capacity would likely be addressed elsewhere, potentially in a location with greater environmental sensitivities or requiring more extensive off-site infrastructure. The No Project Alternative was not selected.

6.7 Comparative Evaluation of Alternatives

Appendix B, Section (f)(2) requires an evaluation of the comparative engineering, economic, and environmental merits of the alternatives. The following summarizes the comparative merits.

6.7.1 Engineering Merits

The Proposed Project represents the most engineeringly sound alternative because diesel-fired emergency standby generation is a proven, reliable technology for extended backup power at data center scale. On-site fuel storage at 600,000 gallons provides true operational independence from utility infrastructure during the emergency and disaster scenarios the system is designed to address. N+1 generator redundancy, combined with UPS-integrated battery ride-through, satisfies Tier III/IV reliability standards. The use of Tier 2 base engines with external DPF/SCR aftertreatment—rather than factory-integrated Tier 4 SCR engines—is directly responsive to NFPA 110 TIA 22-1 and ensures that emissions controls cannot trigger an engine shutdown during a live emergency. No alternative technology offers an equivalent combination of reliability, scale, and fuel autonomy under current commercial conditions.

6.7.2 Economic Merits

The Proposed Project represents a feasible and economically sound approach. Caterpillar 3516E generator technology is commercially available from multiple vendors at competitive pricing. The Johnson Matthey SCRT aftertreatment system is a proven, commercially available add-on that has been demonstrated at this engine/output combination for comparable data center applications (including the 99 MW Los Angeles data center project referenced in Quinn Power Systems communications). Avoidance of new off-site pipeline infrastructure, transmission construction, or specialized utility extensions minimizes capital costs and permitting risk. Battery-only and hydrogen alternatives were found to be economically infeasible at the required scale.

6.7.3 Environmental Merits

The Proposed Project is the environmentally superior feasible build alternative. Generator operation is limited to emergency utility outages and required testing and maintenance, resulting in low actual annual operating hours and correspondingly limited air quality and noise impacts. The Johnson Matthey DPF/SCR aftertreatment system achieves NO_x reductions of approximately 91% from pre-control levels (5.63 g/bhp-hr to 0.50 g/bhp-hr), meeting U.S. EPA Tier 4 Final standards for NO_x and PM. CO, HC, and PM are reduced by 80%, 70%, and 85% respectively. Sound-attenuated enclosures with 40–45 dBA insertion loss reduce operational noise to approximately 60–70 dBA at 7 meters from unenclosed levels of 105–110 dBA. The compact site layout and use of existing infrastructure corridors limits land disturbance to the project parcel. No new bulk transmission construction is required. The centralized generator yard and ULSD storage configuration supports efficient hazardous materials management and spill prevention.

Among all build alternatives evaluated, the natural gas alternative would not offer a clear environmental advantage given pipeline supply vulnerability, potential off-site infrastructure impacts, and comparable post-control air quality performance. Battery and hydrogen alternatives offer theoretical zero-combustion advantages but are infeasible at the required scale. The No Project Alternative avoids all impacts but fails to meet Project objectives.

6.7.4 Comparative Environmental Summary Across CEQA Technical Areas

CEQA Guidelines Section 15126.6(f) requires that the alternatives analysis evaluate the comparative environmental impacts of alternatives across the technical areas addressed in the environmental analysis. The following table provides the required comparative summary, drawing on the findings of the technical analyses prepared for this Application. Cross-references to the relevant technical sections are provided for each impact area. For all technical areas, the Proposed Project's impacts are found to be less than significant, and no alternative was identified that would substantially reduce environmental impacts while meeting the Project's basic objectives.

CEQA Technical Area	Proposed Project Finding	No Project Alternative	Natural Gas Alternative	Alternative Site(s)
Air Quality (§4.3)	Less than significant. Total operational NOx 18.6 tpy (threshold 25 tpy). Post-control NOx 0.50 g/bhp-hr (Tier 4F equivalent). GHG 2,379 MT CO ₂ e/yr (threshold 25,000). EKAPCD emergency exemption (<200 hr/yr) applies; no offsets required.	No air quality impacts — superior on this metric but fails Project objectives.	Similar or greater air emissions; pipeline off-site infrastructure adds construction-phase impacts. No clear air quality advantage over proposed config.	Same emission sources; no air quality improvement from site relocation. Comparable or greater construction emissions if new transmission required.
Noise (§4.13)	Less than significant. Worst-case operational Ldn 49–58 dB at all receptors; well below 65 dB Ldn Kern County standard. Sound-attenuated enclosures (40–45 dBA insertion loss) reduce per-unit levels to ~65 dBA at 7 m. Construction noise	No operational noise — superior on this metric but fails Project objectives.	Comparable noise profile; natural gas generators produce similar mechanical and exhaust noise characteristics. No improvement over proposed configuration.	Same equipment and noise sources. Rejected sites are nearer to Ridgecrest residential areas, potentially increasing noise receptor exposure.

CEQA Technical Area	Proposed Project Finding	No Project Alternative	Natural Gas Alternative	Alternative Site(s)
	54–58 dBA Leq at 1,000 ft; below 80 dBA FTA threshold.			
Biological Resources (§4.4)	Less than significant with mitigation. Site is Desert Scrub and Alkali Desert Scrub (~53 acres total). No designated critical habitat within 10 miles. No jurisdictional waters/wetlands within footprint. Special-status species (Mohave ground squirrel, desert tortoise, burrowing owl) addressed through BIO-1 through BIO-11 mitigation measures. No sensitive natural communities on site.	No direct biological impacts — superior on this metric but fails Project objectives.	No clear biological advantage; gas pipeline off-site infrastructure would require new biological surveys and potential mitigation along pipeline corridor.	Similar desert scrub habitat on all Mojave Desert sites evaluated. Proposed site is adjacent to disturbed/developed land (RB Solar, SR-178 corridor), limiting biological exposure relative to more remote alternatives.
Hazards and Hazardous Materials (§4.9)	Less than significant. 600,000 gal ULSD storage in UL-2085 double-wall ASTs with secondary containment; SPCC plan required. HMBP, EPCRA Tier II, and RCRA LQG compliance required. All CEQA Appendix G hazards criteria less than significant. Inyokern Elementary School (~0.23 mi SW) and Senior Center (~0.24 mi SW) within 0.25 mile; health risk	No hazardous materials stored or used — superior on this metric but fails Project objectives.	Eliminates on-site ULSD storage; introduces pipeline corridor hazards and gas service dependency. Similar hazmat profile for transformer fluids, refrigerants, and battery systems.	Same hazmat profile. Ridgecrest urban core sites are nearer to residential and school receptors, potentially increasing CEQA Appendix G(c) school proximity screening concern.

CEQA Technical Area	Proposed Project Finding	No Project Alternative	Natural Gas Alternative	Alternative Site(s)
	analysis (HARP) confirms no exceedance of significance thresholds.			
Land Use and Planning (§4.11)	Less than significant. M-2 PD zoning consistent with Service Industrial/Flood Hazard GP designation. CUP, SPA, LLA, and ALUC consistency determination required but standard. No prime farmland, Williamson Act, or timberland on site. Non-VHFHSZ (LRA). Site in ALUCP Zone C; all structures <35 ft AGL, 115 ft below Part 77 horizontal surface. SPA required to remove 90-ft ROW reservation.	No land use change — superior on this metric but fails Project objectives.	Similar industrial land use change. Pipeline infrastructure would introduce new land use impacts along corridor. Comparable entitlement burden.	Rejected sites would require new transmission line construction across undeveloped land, greater land use impact than using existing Inyokern substation infrastructure.
Transportation (§4.16)	Less than significant. VMT 27.13 (30.37% below OPR threshold of 31.32). Construction generates ~267 ADT; operations ~241 ADT — both below Kern County 50-trip peak-hour LOS threshold. Airport proximity confirmed less than significant (all structures <35 ft	No construction or operational traffic — superior on this metric but fails Project objectives.	Similar traffic volumes; pipeline construction would add haul trips along new corridor. No reduction in oversize equipment delivery requirements.	Rejected sites along US-395 corridor or near Ridgecrest would require new transmission line haul routes, potentially increasing construction traffic impacts. Comparable operational VMT profile.

CEQA Technical Area	Proposed Project Finding	No Project Alternative	Natural Gas Alternative	Alternative Site(s)
	AGL; thermal plume max 201.7 ft at Vcrit). No FAA 7460-1 filing required. US-395/SR-178 access adequate; oversize permits required for major equipment deliveries.			
Aesthetics / Visual Resources (§4.1)	Less than significant with design controls. Five KOPs evaluated; structures <30 ft height; no designated State Scenic Highway within Kern County. Nearest eligible scenic highway SR-14 is ~3.2 miles west. Lighting plan per Kern County Dark Skies Ordinance; “Normally Dim + Task-Up” control philosophy; all luminaires full-cutoff/downward-directed. No scenic vistas, PCT not relevant at 12.5 miles. Site adjacent to existing industrial uses (RB Solar, Chevron, SR-178).	No new visual elements — superior on this metric but fails Project objectives.	Similar visual footprint; above-ground pipeline infrastructure would introduce new visual element along corridor. No advantage over proposed configuration.	Proposed site is adjacent to existing developed/industrial land reducing visual contrast. Remote US-395 corridor sites and Ridgecrest urban core offer no clear visual advantage.
Water Resources	Anticipated less than significant. ADD ~40,430 GPD; cooling tower makeup ~28,500 GPD. Inyokern CSD Will Serve Letter (executed April 2,	No water demand — superior on this metric but fails Project objectives.	Same water demand profile. CSD service availability was a key factor in site selection; rejected sites lack established CSD	Same demand; rejected sites lack Inyokern CSD service pathway, requiring new standalone well and wastewater infrastructure with

CEQA Area	Technical	Proposed Project Finding	No Project Alternative	Natural Gas Alternative	Alternative Site(s)
		2026) confirms water and sewer service availability. Annexation into Inyokern CSD required. On-site retention basin (2.2 ac-ft). No 100-yr floodplain discharge pathway.		service pathway and would require standalone water systems.	greater groundwater and water quality impacts.
Cultural Resources (\$4.5)		Less than significant. Phase I survey (ASM, January 2026) of 95-acre study area including 200-ft buffer found no new archaeological sites or historic properties. Six previously recorded resources located and updated — all historic refuse scatters, a SPRR segment, and SR-178 segment — all recommended not eligible for the CRHR due to lack of integrity. No human remains encountered. Buried resources potential assessed as low given disturbed site context. NAHC Sacred Lands File search negative. Unanticipated Discovery Plan and worker awareness training required as standard conditions.	No ground disturbance — superior on this metric but fails Project objectives.	Pipeline corridor ground disturbance would require additional cultural resource surveys. No clear advantage over proposed site.	Proposed site is on previously disturbed land (borrow pit, OHV disturbance). Remote corridor sites and undisturbed desert land could have higher cultural resource sensitivity.

As shown in the table above, across all CEQA technical areas for which technical analyses have been completed, the Proposed Project's impacts are less than significant. For each technical area, the No Project Alternative avoids impacts but fails to meet Project objectives. No build alternative—including the natural gas technology alternative and the three screened alternative site categories—was identified that would substantially reduce environmental impacts relative to the Proposed Project while meeting the Project's basic objectives. One technical area (water resources) is flagged with a bracketed note for completion when the corresponding technical section is finalized; the Alternatives section will be updated to incorporate those findings prior to final CEC filing.

6.8 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(e)(2) requires identification of the environmentally superior alternative. As noted above, the No Project Alternative is the environmentally superior alternative because it avoids all Project-related impacts. However, the No Project Alternative fails to meet the Project's basic objectives.

Among feasible build alternatives, the Proposed Project is the environmentally superior alternative. The DPF/SCR aftertreatment system achieves post-control emission rates equivalent to Tier 4 Final standards for all criteria pollutants, while the emergency-only operational profile limits total annual emissions to a small fraction of permitted capacity. Sound-attenuated enclosures minimize noise impacts. The compact site layout limits land disturbance. No new off-site linear facilities are required. No feasible alternative was identified that would substantially reduce environmental impacts relative to the Proposed Project while meeting the Project's basic objectives.

6.9 Alternatives Considered but Dismissed from Detailed Analysis

The following were considered but dismissed because they clearly failed to meet Project objectives or were patently infeasible:

- **Colocation at Existing Data Center:** Would not satisfy requirements for a purpose-built, controlled-access facility meeting defense-adjacent security, reliability, and connectivity requirements.
- **Virtual/Cloud-Only Approach:** Not feasible given latency, security, sovereignty, and performance requirements of the intended customer base.
- **Modular or Temporary Data Center:** Does not provide the permanence, scalability, and physical security required for the intended customer base and Tier III certification.
- **Renewable-Powered Microgrid:** A standalone renewable energy microgrid (solar + wind + storage) capable of providing 120 MW of dispatchable backup power with multi-day duration at this location was evaluated conceptually. While the Inyokern area has high solar resource, a microgrid of this scale and reliability would require storage capacity far

exceeding current commercial availability and would not meet the independence from utility infrastructure required for Tier III mission-critical operations. Not carried forward.

6.10 Conclusion

Based on the foregoing evaluation, no feasible alternative was identified that would substantially reduce environmental impacts while meeting the Project's basic objectives. The Proposed Project—forty (40) Caterpillar 3516E diesel generators at 3,000 ekW each (120 MW total) equipped with Johnson Matthey DPF/SCR aftertreatment achieving Tier 4 Final equivalent post-control emissions, supported by 600,000 gallons of on-site ULSD storage, a customer-dedicated 115/34.6 kV substation, UPS-integrated battery ride-through, annexation into Inyokern CSD, and on-site stormwater management—represents the most practical, economically feasible, and environmentally responsible means of achieving the Project purpose and objectives.

The Proposed Project is therefore the preferred alternative.

SECTION 7.0 - SUMMARY OF PROJECT IMPACTS

This section provides a consolidated summary of the Project's environmental impact findings across all CEQA resource areas evaluated in this Application, consistent with the CEC SPPE Application requirements under 20 CCR Division 2, Chapter 5, Appendix B. Following implementation of all Project Design Measures (PDMs) and applicable mitigation measures identified in Sections 4.1 through 4.20, no resource area results in a significant and unavoidable impact. All identified impacts are reduced to less-than-significant levels through mitigation, where mitigation is required.

This section is based on the completed environmental impact analyses provided in Sections 4.1 through 4.20 of this Application, the Growth-Inducing Impacts analysis in Section 5.0, the technical appendices filed with this Application, and the mitigation measures identified in each technical section. All impact analyses were conducted by qualified professionals using methodologies consistent with CEQA Guidelines, applicable EKAPCD guidance, CEC SPPE Appendix B requirements, and accepted professional practice.

7.1 Project Features and Commitments

Several key Project design features and regulatory commitments reduce the potential for significant and unavoidable impacts across the range of resource areas evaluated:

- Emergency-only diesel backup generation, no grid export. The 40 Caterpillar 3516E generators (120 MW gross / 99 MW maximum operational load) operate exclusively during utility outages and for limited commissioning, testing (~50 hours/year/engine), and maintenance. The Project is not a merchant generating or peaking facility.
- Tier 4 Final equivalent emission controls. Each generator is equipped with a Johnson Matthey Compact SCRT system (DPF + SCR), achieving emissions rates consistent with U.S. EPA Tier 4 Final standards and compliant with NFPA 110 TIA 22-1 (May 2024), which prohibits SCR inducement shutdowns in Level 1 applications.
- Best-in-class energy efficiency. Project achieves a Power Usage Effectiveness (PUE) of 1.34–1.41, substantially better than the U.S. data center average, through integrated cooling design, adiabatic towers, air-side economizers, and on-site solar PV (1 MW-DC, ~2,015 MWh/yr).
- Confirmed utility service. Inyokern CSD Will Serve Letter (April 2, 2026) confirms water and sewer service capacity subject to conditions. SCE MOS174 (March 30, 2026) confirms 99 MW electrical interconnection with no adverse system impacts.
- M-2 PD zoning consistency. Project Site is vacant undeveloped land zoned M-2 PD (Medium Industrial, Precise Development Combining), consistent with the Kern County General Plan and Inyokern Specific Plan industrial land use designation.

- Comprehensive mitigation program. Mitigation Measures MM 4.3-1 through MM 4.20-4 address all resource areas where potentially significant impacts were identified, reducing impacts to less-than-significant levels.

7.2 Summary of Impacts by Resource Area

The below **Table 7-1** presents the significance finding for each resource area evaluated in this Application following implementation of all Project Design Measures (PDMs) and applicable mitigation measures. No resource area results in a significant and unavoidable impact.

Table 7-1: Summary of Project Impacts

Section	Resource Area	Basis for Finding	Level of Significance After Mitigation	Mitigation Measures
4.1	Aesthetics / Visual Resources / Lighting	All six KOP visual simulations evaluated; no scenic highway impacts; lighting plan consistent with county standards.	Less Than Significant with Mitigation	MM 4.1 through MM 4.1-2
4.2	Agriculture and Forestry Resources	Project Site is vacant industrial-zoned land; no agricultural, Williamson Act, or forestland present or nearby. No impact to agricultural resources.	No Impact	None required
4.3	Air Quality / Health Risk Assessment	Construction and operational emissions below all EKAPCD thresholds; CARB HARP health risk analysis confirms no significant cancer risk or hazard index exceedances at sensitive receptors including Inyokern Elementary School and Senior Center (both ~0.8 miles SW).	Less Than Significant with Mitigation	MM 4.3-1 through 4.3-3
4.4	Biological Resources	No jurisdictional waters or wetlands, no sensitive plant communities, no wildlife corridors; special-status species impacts (Desert Tortoise, Mohave Ground Squirrel, Le Conte's Thrasher, kit fox) mitigated through pre-	Less Than Significant with Mitigation	MM 4.4-1 through MM 4.4-11

Section	Resource Area	Basis for Finding	Level of Significance After Mitigation	Mitigation Measures
		construction surveys, clearance, exclusion fencing, monitoring, and CDFW Incidental Take Permit.		
4.5	Cultural Resources	Phase I survey identified six previously recorded resources, all recommended not eligible for CRHR listing; no new resources found; HAR similarly finds no eligible built-environment resources. Archaeological and inadvertent discovery protocols required.	Less Significant Than with Mitigation	MM 4.5-1 through MM 4.5-4
4.6	Energy	Best-in-class PUE of 1.41; 867,240 MWh/yr grid electricity from SCE; generator fuel use ~121,900 gal/yr; no wasteful or unnecessary consumption; consistent with Title 24 and applicable energy LORS.	Less Significant Than with Mitigation	MM 4.6-1 through MM 4.6-12
4.7	Geology, Soils, and Paleontological Resources	No active faults on site; standard seismic design; Pleistocene-age alluvial deposits present as shallow as 5 ft below grade requiring paleontological monitoring; no unstable soils identified. All geology and paleo impacts mitigated.	Less Significant Than with Mitigation	MM 4.7-1 through MM 4.7-8
4.8	Greenhouse Gas Emissions	Total on-site operational GHG: 2,379 MT CO ₂ e/yr — well below EKAPCD threshold of 25,000 MT CO ₂ e/yr. No conflict with applicable GHG plans.	Less Significant Than with Mitigation	See 4.3-3

Section	Resource Area	Basis for Finding	Level of Significance After Mitigation	Mitigation Measures
4.9	Hazards and Hazardous Materials	No Superfund sites within 0.5 mile; 600,000 gal on-site diesel storage with SPCC Plan; no CalARP thresholds exceeded; Inyokern Airport Compatibility Zone C; HMBP and CERS required. Health risk from diesel exhaust below thresholds.	Less Than Significant with Mitigation	MM 4.9-1 through MM 4.9-10
4.10-1	Hydrology — Surface Water / Drainage / Flooding / Water Quality	On-site retention basin (2.2 ac-ft) manages 100-yr stormwater; SWPPP required; no floodplain conflicts; erosion BMPs reduce sediment impacts. All surface water impacts less than significant. See Note 1 below	Less Than Significant with Mitigation	MM 4.10-1 through MM 4.10-3 See MM 4.7-3, MM 4.9-1
4.11	Land Use and Planning	Project consistent with M-2 PD zoning, Kern County General Plan, and Inyokern Specific Plan; no division of established community; Airport Land Use Compatibility Plan (Inyokern Airport Zone C) analyzed; no agricultural land conversion.	Less Than Significant with Mitigation	See Mitigation Measures under Section 4.4 Biological Resources, Section 4.9 Hazards and Hazardous Materials, Section 4.13 Noise, Section 4.16 Transportation, and Section 4.10 Hydrology and Water Quality
4.12	Mineral Resources	Project Site not identified as containing significant mineral deposits of statewide or regional importance; no MRZ-2 or MRZ-3 designation on site.	Less Than Significant with Mitigation	MM 4.12-1

Section	Resource Area	Basis for Finding	Level of Significance After Mitigation	Mitigation Measures
4.13	Noise and Vibration	Construction noise below significance thresholds at nearest receptors; operational generator noise (emergency testing 50 hrs/yr/engine) below Kern County standards; no significant ground borne vibration; airport noise not significant. Switchyard/transmission noise calcs pending SCE final design (supplement prior to completeness determination).	Less Significant Than with Mitigation	MM 4.13-1 (construction hours)
4.14	Population and Housing	No residential displacement; construction workforce (~592 peak, ~300 average) drawn from regional labor pool with minimal relocation; permanent staff ~30–60 employees insufficient to induce measurable population growth.	Less Significant Than	None required
4.15	Public Services	No new fire stations, sheriff substations, schools, or libraries required; emergency response times within standards; Kern County Fire Department confirmed adequate coverage; SSUSD school facilities fee estimated at ~\$215,000 (one-time). Applicant will fund public services impact under MM 4.15-3.	Less Significant Than with Mitigation	MM 4.15-1 through 4.15-3
4.16	Transportation and Traffic	Construction peak traffic ~150 ADT; operational traffic ~56 ADT (30 employees + deliveries); all study intersections operate at acceptable LOS; VMT per employee below regional average; Inyokern Airport FAR Part 77 surfaces confirmed clear; no road hazards from Project geometry.	Less Significant Than with Mitigation	MM 4.16-1 through MM 4.16-5

Section	Resource Area	Basis for Finding	Level of Significance After Mitigation	Mitigation Measures
4.17	Tribal Cultural Resources	No tribal cultural resources identified in field survey; NAHC Sacred Lands File request submitted (December 22, 2025 and January 23, 2026); tribal outreach pending NAHC response (supplement upon receipt); inadvertent discovery protocol and Native American monitor required.	Less Than Significant with Mitigation	MM 4.17-1 through MM 4.17-5; MM 4.5-1 through 4.5-6
4.18	Utilities and Service Systems	Electrical (SCE MOS174), water (Inyokern CSD Will Serve), wastewater (Inyokern CSD), stormwater (retention basin / SWPPP), telecommunications, and solid waste all confirmed adequate; no new treatment plant or utility expansion required.	Less Than Significant with Mitigation	MM 4.18-1 through MM 4.18-7 See MM 4.10-2 and MM 4.10-3
4.19	Environmental Justice	Inyokern CDP CalEnviroScreen 4.0 score of 66 (below SB 535 75th percentile threshold); elevated asthma and cardiovascular indicators noted; Project air, noise, traffic, aesthetics, utilities, hazards, and public service impacts all confirmed less than significant with no disproportionately high and adverse effects on EJ populations.	Less Than Significant	No additional MM required for Environment Justice See PDMs and cross-referenced MMs
4.20	Wildfire	Project Site classified LRA (not SRA); not within VHFHSZ; CAL FIRE FHSZ map confirms Moderate classification at nearest SRA boundary (~3 miles); emergency response and evacuation plans addressed; onsite fuel containment measures required.	Less Than Significant with Mitigation	MM 4.20-1 through MM 4.20-4

Section	Resource Area	Basis for Finding	Level of Significance After Mitigation	Mitigation Measures
5.0	Growth-Inducing Impacts	Project infrastructure sized to serve on-site demands only; no surplus capacity; no residential development; temporary construction workforce produces minimal household relocation; 30–60 permanent employees insufficient to drive regional growth. Applicant will fund potentially growth inducing infrastructure costs under MM 4.15-4. Project is not growth-inducing.	Less Significant Than with Mitigation	Applicant will fund potentially growth inducing infrastructure costs under MM 4.15-4.

Note 1: The Water Supply Assessment (WSA) attached as Appendix E.3 has provided the data and analysis needed to verify that a sufficient Project water supply is physically available (Section 3.1) and that the Project water supply is in accord with SB 610's normal year/dry-year/multiple-dry year requirements (Section 3.2). The maximum water demand for this Project is estimated at 49.10 acre-feet/year, or approximately 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. Compliance with the DWR Guidelines for the Project is included in Appendix C. It is recommended that the County of Kern conclude that the proposed water supplies for the Project are sufficient to meet the projected Project water demand.

7.3 Conclusion

Based on the environmental analyses completed for this Application, the RB Inyokern Data Center Project would not result in significant and unavoidable environmental impacts in all CEQA resource areas including aesthetics, agriculture, air quality, biological resources, cultural and tribal cultural resources, energy, geology/soils/paleontology, greenhouse gas emissions, hazards, water and hydrology, land use, mineral resources, noise, population and housing, public services, transportation, utilities, environmental justice, wildfire, and growth-inducing effects; all of which have been deemed less than significant.

SECTION 8.0 — IRREVERSIBLE ENVIRONMENTAL CHANGES

This section addresses the irreversible commitments of resources and environmental changes associated with implementation of the RB Inyokern Data Center (RBIDC or Project), as required by CEQA Guidelines Section 15126.2(c) and consistent with CEC SPPE Application requirements under 20 CCR Division 2, Chapter 5, Appendix B. Irreversible environmental changes include the permanent conversion of land, the long-term dedication of infrastructure to a specific use, the consumption of nonrenewable resources that cannot be recovered, and environmental effects that cannot be fully reversed once the Project is constructed and operational.

The Project consists of construction and operation of a hyperscale data center campus in Inyokern, Kern County, California. The SPPE component is an emergency backup generating facility comprising forty (40) Caterpillar 3516E diesel-fired generator sets with a gross nameplate capacity of 120 MW (40×3 MW per unit), designed to operate exclusively during utility outages and for limited commissioning, testing, and maintenance activities. The maximum operational load served under any scenario is 99 MW, consistent with the Project's SCE utility interconnection under MOS174 (March 30, 2026). Operational utility load is drawn from the SCE transmission grid at 115 kV, with a 99 MW interconnection confirmed under SCE MOS174 (March 30, 2026). The Project is not a merchant generating facility and does not export power to the grid.

The data center campus encompasses approximately 238,000 square feet of building area on a 50-acre site, developed in three phases over an approximately 48-month construction period beginning in 2027. The campus includes a customer-dedicated 115/34.6 kV substation and two 115 kV overhead subtransmission lines connecting to the existing SCE Inyokern 115 kV Substation (Route 1, approximately 8,000 linear feet; Route 2, approximately 4,000 linear feet). The Project Site is currently vacant and undeveloped, zoned M-2 PD (Medium Industrial, Precise Development Combining) under the Kern County Zoning Ordinance, and consistent with the Inyokern Specific Plan.

Supporting details for the Project description, resource commitments, and design features referenced in this section are provided in Section 1 (Executive Summary and Project Description), Sections 4.1 through 4.20 (Environmental Settings, Impacts, and Mitigation), Appendix E.1 (Hydrology Study), Appendix E.3 (Water Supply Assessment), Appendix F.1 (Air Quality Impact & GHG Analysis), Appendix J.1 (Phase I Environmental Site Assessment), and Appendix K.1 (Soil & Geology Report).

8.1 Permanent Land Use and Infrastructure Commitment

8.1.1 Conversion of Undeveloped Land

Implementation of the Project would permanently convert approximately 50 acres of vacant, undeveloped desert scrub in the Inyokern area from an undisturbed condition to an industrial data center use. The total development footprint, including the data center campus, customer-dedicated substation, and transmission infrastructure, encompasses approximately 38.18 acres (1,663,349 square feet) of on-site ground disturbance. Additional off-site ground disturbance is associated with the SCE subtransmission line corridors and Inyokern Substation expansion; quantities for

those areas will be provided in the supplemental APN matrix upon finalization of SCE's route alignments.

The Project Site is situated on alluvial fan terrain in the western Mojave Desert. Pre-project land uses were entirely undeveloped, characterized by sparse Mojave Desert scrub habitat on sandy alluvial soils. Once constructed, the installation of buildings, paved areas, subsurface utilities, fuel storage infrastructure, and electrical equipment would effectively preclude return to pre-project conditions for the operational life of the Project (estimated at 25–30 years). Although the Facility Closure Plan (Section 1.12) provides for site restoration upon decommissioning, including demolition of aboveground structures, removal of underground utilities where feasible, and soil and groundwater assessment, the extent to which original soil conditions and vegetation communities could be reestablished after 25–30 years of industrial use cannot be guaranteed.

This land commitment is consistent with and anticipated by the Project Site's existing M-2 PD zoning designation and the Inyokern Specific Plan's industrial land use designation, both of which contemplate heavy industrial and infrastructure uses at this location. The Project does not involve conversion of agricultural land, Williamson Act contract land (the nearest Williamson Act parcels are approximately 7.5 miles east near Ridgecrest), or land designated for conservation. No sensitive habitat types — including jurisdictional waters, wetlands, riparian habitat, or special-status plant communities — were identified within the Project Site. No special status plant communities are negatively impacted. Impacts to special status plant and animal species would be minimized and avoided and mitigated pursuant to a CDFW Incidental Take Permit.

8.1.2 Long-Term Infrastructure Dedication

The Project would establish long-term infrastructure commitments extending across the operational life of the facility:

- Customer-dedicated 115/34.6 kV electrical substation on APN 084-010-48 (approximately 11 acres, south of SR-178), including two 60/80/100 MVA transformers with load tap changers and associated switchgear, dedicated to Project use for the facility's operational life.
- Two 115 kV overhead subtransmission line corridors between the SCE Inyokern 115 kV Substation and the Project substation, traversing unincorporated Kern County on parcels not owned by the Applicant; these facilities will be built, owned, and operated by SCE consistent with MOS174.
- Annexation of the Project Site into the Inyokern Community Services District (CSD) for domestic water and sanitary sewer service, committing on-site and off-site utility infrastructure to serve Project demands for the operational life of the facility.
- On-site stormwater retention basin with approximately 2.2 acre-feet of retention volume, constructed to comply with Kern County drainage standards and designed to manage post-construction runoff for the operational life of the Project.

- Six (6) 100,000-gallon double-walled aboveground diesel fuel storage tanks (600,000 gallons total capacity) with secondary containment, supporting emergency generator operation throughout the Project's operational life.

These infrastructure commitments would constrain the range of future land uses of the Project Site without substantial redevelopment and represent irreversible dedications of land and capital for the duration of the facility's operational life. As documented in Section 4.11 (Land Use and Planning), the Project is consistent with applicable land use plans and does not conflict with any adopted plan, policy, or regulation governing land use. No mitigation measures are required for land use impacts; the land commitment associated with the Project is characteristic of permitted industrial development at this location.

8.2 Consumption of Nonrenewable Resources

8.2.1 Construction-Phase Resource Consumption

Construction of the Project over the approximately 48-month construction period beginning in 2027 would require the irretrievable commitment of substantial quantities of nonrenewable construction materials. Key material categories include:

- Concrete and aggregate: foundations, building slabs, equipment pads, paved surfaces, and retention basin structures. Aggregate materials are derived from finite natural deposits; once incorporated into permanent structures they cannot be economically recovered.
- Structural steel, rebar, and metal components: building frames, generator enclosures, fuel tank structures, substation support structures, transmission tower and pole components, and distribution equipment.
- Electrical and mechanical equipment: 40 Caterpillar 3516E generator sets (3,000 kW / 3,750 kVA each at 13.8 kV), two 60/80/100 MVA switchyard transformers, four 36/48/60 MVA distribution transformers, UPS systems, cooling towers and chillers, fuel storage tanks, switchgear, cabling, and data hall equipment infrastructure.
- Diesel fuel and lubricants: construction equipment would consume diesel fuel throughout the 48-month construction period. Construction emissions were modeled using CalEEMod version 2022.1.1.37 consistent with EKAPCD methodology. Construction-phase air quality emissions would not exceed EKAPCD significance thresholds during any given year and are less than significant.

Earthwork, grading, trenching for underground utilities, and installation of building foundations would permanently modify existing soil conditions. Building foundations are not expected to extend deeper than 10 feet below grade. The stormwater retention basin is anticipated to represent the deepest excavation on site; final basin geometry and depth will be confirmed during final civil design. Once these materials are installed or consumed, they cannot be recovered in their original form, representing an irreversible commitment of resources.

Construction workforce is estimated at a peak of approximately 592 workers in Month 20 of construction, with an average of approximately 300 workers throughout the 48-month construction period, generating approximately 14,401 total job-months of employment. Worker commute trips and construction vehicle travel would consume additional petroleum fuel resources during the construction period.

8.2.2 Operational Energy Consumption

During operations, the Project would consume approximately 867,240 MWh per year of electrical energy drawn from the SCE grid ($99 \text{ MW} \times 8,760 \text{ hours/year}$), representing the primary and most significant resource commitment associated with Project operation. This energy consumption is commensurate with the scale of the hyperscale data center campus and is proportionate to the critical computing infrastructure services provided. The Project's design achieves a best-in-class Power Usage Effectiveness (PUE) of approximately 1.41 (Phase 1 through Phase 3), reflecting extensive energy efficiency measures described in Section 4.6 (Energy) and summarized below.

Energy inputs by source are summarized in the table below:

Resource	Annual Quantity	Source / Notes
Grid electrical energy (utility operations)	~867,240 MWh/yr	$99 \text{ MW} \times 8,760 \text{ hrs}$; SCE 115 kV interconnection; 99 MW SCE interconnection per MOS174
Diesel fuel (emergency generator testing)	~121,900 gal/yr	$40 \text{ generators} \times \sim 50 \text{ hrs/yr testing}$; 164.9 gal/hr/unit at 75% load (CAT 3516E)
Diesel fuel (emergency generator heat value)	~16,700 MM BTU/yr	LHV ~137,000 BTU/gal; normal operations only; excludes commissioning
Diesel Exhaust Fluid (DEF)	Proportional to generator use	Used in SCR aftertreatment system on each generator; stored in dedicated tanks in generator enclosures
On-site solar PV generation (offset)	~2,015 MWh/yr generated	1 MW-DC rooftop and parking canopy PV; partial offset to non-IT utility consumption

The commitment of approximately 867,240 MWh per year of grid electrical energy represents the principal irreversible resource consumption associated with Project operations. This energy is generated by the SCE transmission system from a mix of in-state and imported resources; the environmental implications of this off-site generation are addressed through the SCE interconnection process and applicable CPUC requirements. On-site GHG emissions from generator operations (emergency use and testing) are estimated at 2,379 MT CO_{2e} per year, well below the EKAPCD significance threshold of 25,000 MT CO_{2e} per year (Section 4.8).

8.2.3 Fossil Fuel Commitment — Emergency Diesel Generation

The Project's emergency backup generating facility represents a long-term commitment to diesel fuel availability as a critical resilience resource. The 40 Caterpillar 3516E generators are equipped with Johnson Matthey Compact SCRT exhaust aftertreatment systems (combined DPF + SCR), achieving emission rates equivalent to U.S. EPA Tier 4 Final standards. The generator design is compliant with NFPA 110, 2022 Edition, including TIA 22-1 (effective May 8, 2024), which prohibits EPA-mandated SCR inducement shutdowns in Level 1 applications, ensuring the emergency backup function is not compromised by aftertreatment system requirements.

Under normal operations, generator activity is limited to approximately 50 hours per year per engine for required testing and maintenance, with emergency operation occurring only during actual utility outages of unpredictable frequency and duration. This limited operating profile means that total annual diesel consumption under normal conditions is estimated at approximately 121,900 gallons per year (approximately 16,700 MM BTU/year), a relatively modest fossil fuel commitment for a facility of this scale. On-site storage of 600,000 gallons of diesel fuel (six 100,000-gallon double-walled tanks) provides extended operational duration during extended utility outages independent of resupply logistics.

The long-term availability of diesel fuel as a backup power source is subject to market and supply chain conditions that cannot be fully predicted over the Project's 25–30-year operational life. The Project's design incorporates storage capacity and supply agreements intended to mitigate this risk, consistent with Tier III data center reliability requirements. This commitment to diesel-based emergency generation represents an irreversible design choice that defines the Project's resilience architecture for its operational life.

8.2.4 Water Resources

Operational water demands are associated with the cooling tower system and domestic/process water needs. The cooling tower recirculation flow rate is estimated in the range of 500–1,000 gallons per minute pending completion of final mechanical engineering for the cooling tower system (note: this is the recirculation rate only; net consumptive makeup demand is approximately 28,500 GPD per the CSD Will Serve Letter). The final design parameters and water balance will be filed as a supplement to this Application consistent with Section 3.2 (Pending Project Elements). Water service will be provided through annexation into the Inyokern CSD, which has

issued a Will Serve Letter for the Project (Appendix M.3, confidential). Water supply assessment documentation is provided in Appendix E.3.

The commitment of municipal water resources for cooling represents a long-term demand on the Inyokern CSD water supply system throughout the Project's operational life. As documented in Section 4.10 (*Hydrology and Water Quality*), the Project's water usage is governed by the Indian Wells Valley Groundwater Sustainability Plan and is required to comply with annual pumping allocations and augmentation fees under Mitigation Measures MM 4.10-2 and MM 4.10-3.

Notably, the Water Supply Assessment (WSA) attached as Appendix E.3 has provided the data and analysis needed to verify that a sufficient Project water supply is physically available (Section 3.1) and that the Project water supply is in accord with SB 610's normal year/dry-year/multiple-dry year requirements (Section 3.2). The maximum water demand for this Project is estimated at 49.10 acre-feet/year, or approximately 0.185% of the projected available yearly supply of 26,511 acre-feet. The Project will have very little impact on groundwater use in the area. Compliance with the DWR Guidelines for the Project is included in Appendix C. It is recommended that the County of Kern conclude that the proposed water supplies for the Project are sufficient to meet the projected Project water demand. The Project's consumption of water, under an existing water allocation granted to the Inyokern CDS, does not limit the current and future recharge of the ground water basin. With these measures, impacts to groundwater supply would be less than significant.

8.3 Irreversible Loss of Paleontological Resources

The Project Site is underlain by Holocene-age alluvial deposits at the surface, with Pleistocene-age alluvial deposits conservatively estimated to be present as shallow as five feet below grade, establishing the basis for construction-phase paleontological monitoring requirements. Pleistocene-age alluvial deposits in the Mojave Desert have moderate to high paleontological sensitivity for fossil remains of Pleistocene megafauna and related fauna, as documented in the Paleontological Resources Assessment (Appendix C.1).

Ground-disturbing activities associated with construction — including mass grading, utility trenching to depths of up to 8 feet, building foundation excavation to up to 10 feet below grade, and stormwater retention basin excavation to the deepest point on site — have the potential to encounter, damage, or destroy previously unidentified paleontological resources in Pleistocene-age deposits. The disturbance and removal of such resources, if encountered, would constitute an irreversible loss of scientifically significant paleontological information that cannot be recovered once the resource is destroyed.

Mitigation Measures MM 4.7-1 through MM 4.7-4, presented in Section 4.7 (*Geology and Soils*), require pre-construction paleontologist retainer, construction-phase monitoring during ground disturbance in sensitive deposits, recovery and documentation of any resources encountered, and curation of recovered materials at a qualified repository. With implementation of these measures, paleontological resource impacts are reduced to a less-than-significant level; however, the physical removal of Pleistocene-age sediments through excavation and grading remains an irreversible action.

8.4 Permanent Alteration of Biological Habitat

The Biological Study Area (BSA) for the Project encompasses the Project site and a surrounding 250-foot buffer in the context of sparse Mojave Desert scrub on sandy alluvial soils. The Biological Analysis Report (BAR; Appendix D.1) documents the existing conditions of the BSA. Alkali Desert Scrub occupies approximately 44.95 acres of the BSA. Special-status animal species with potential to occur in the BSA include Le Conte's Thrasher (*Toxostoma lecontei*; Species of Special Concern), Mohave Ground Squirrel (*Xerospermophilus mohavensis*; Threatened), desert kit fox (*Vulpes macrotis arsipus*; Species of Special Concern), Loggerhead Shrike (*Lanius ludovicianus*; Species of Special Concern), and Desert Tortoise (*Gopherus agassizii*; Federally Threatened).

Construction of the Project would permanently remove desert scrub habitat within the approximately 38.18-acre on-site development footprint of the total approximately 50 acre Project Site; constituting a minimization of habitat loss by 24%. This habitat removal is irreversible in the short to medium term; desert scrub communities in the Mojave Desert require decades to recover following disturbance, and recovery of pre-existing plant community structure and composition within the development footprint would not occur during the Project's operational life. No jurisdictional waters, wetlands, or riparian habitat were identified in the BSA. No special status plant communities are negatively impacted. Impacts to special status plant and animal species would be minimized and avoided and mitigated pursuant to a CDFW Incidental Take Permit.

Mitigation Measures MM 4.4-1 through MM 4.4-11 (Section 4.4) require pre-construction biological surveys, focused surveys for Desert Tortoise and Mohave Ground Squirrel, pre-construction clearance and translocation of any Desert Tortoise individuals encountered, exclusion fencing and biological monitoring during construction, and compensatory mitigation consistent with applicable state and federal requirements. With implementation of these measures, impacts to special-status species are reduced to less-than-significant levels. The permanent removal of Mojave Desert scrub habitat from the development footprint remains an irreversible change associated with the Project; noting, however that the Project would permanently remove desert scrub habitat on approximately 38.18-acre on-site development footprint of the total approximately 50 acre Project Site; constituting a minimization of habitat loss by 24%.

8.5 Irreversible Air Quality Commitments

The Project would generate air pollutant emissions during both construction and operation that, once released to the atmosphere, cannot be recovered. These emissions represent an irreversible commitment of airshed capacity in the Mojave Desert Air Basin (MDAB), regulated by the Eastern Kern Air Pollution Control District (EKAPCD).

8.5.1 Construction Emissions

Construction-phase criteria pollutant emissions from equipment exhaust, worker vehicle trips, and fugitive dust would be generated over the approximately 48-month construction period. As evaluated in the Air Quality Impact & GHG Analysis (AQIA; Appendix F.1) and summarized in Section 4.3 (Air Quality), construction-phase emissions would not exceed EKAPCD significance thresholds (25 tons/year NO_x; 25 tons/year ROG; 15 tons/year PM₁₀) during any given year and

are less than significant. Construction dust control measures are required under Mitigation Measure MM 4.3-1 (EKAPCD Rule 402 compliance) and are incorporated into the Construction Emissions Minimization Plan (CEMP). Once emitted, these construction-phase emissions cannot be recovered.

8.5.2 Operational Emissions

Operational air emissions are dominated by emergency generator activity during testing and emergency use. The 40 generators are each equipped with Johnson Matthey Compact SCRT aftertreatment (DPF + SCR), achieving emissions rates consistent with U.S. EPA Tier 4 Final standards. Under normal operational testing of approximately 50 hours per year per generator, annual operational NO_x emissions are estimated at approximately 22–23 tons per year, below the EKAPCD 25 tons/year significance threshold. The AQIA confirms that ambient air quality impacts from Project operation, including a 24-hour health risk assessment using CARB HARP methodology, are less than significant at all receptor locations.

Sensitive receptors in the Project vicinity include the Inyokern Elementary School and Inyokern Senior Center, both located approximately 0.8 miles southwest of the Project Site. Health risk analysis confirms that maximum individual cancer risk and hazard indices at these receptors are below applicable significance thresholds. The annual diesel exhaust emissions from generator operation represent an ongoing, irreversible commitment of MDAB airshed capacity for the operational life of the Project; however, these emissions are below regulatory thresholds and do not constitute a significant impact.

8.5.3 Greenhouse Gas Emissions

Total on-site operational GHG emissions from the Project are estimated at 2,379 MT CO_{2e} per year (Table 4.8-1; AQIA Table 4-14), representing the annualized combined contribution from emergency generator testing, miscellaneous operations (area sources, mobile sources, waste, and water), and refrigerant leakage from cooling systems. This figure is well below the EKAPCD GHG significance threshold of 25,000 MT CO_{2e} per year. These operational GHG emissions, once released, become part of the global atmospheric GHG inventory and cannot be recovered — representing an irreversible, if minor, contribution to cumulative GHG concentrations. Construction-phase GHG emissions total approximately 5,239 MT CO_{2e} over the 48-month construction period (approximately 174.6 MT CO_{2e} annualized over a 30-year project life). No mitigation is required for GHG impacts.

8.6 Potential for Localized Lasting Effects from Unplanned Events

Construction and operation of the Project would involve the handling and storage of hazardous materials, including diesel fuel (up to 600,000 gallons on-site), diesel exhaust fluid (DEF), lubricants, coolants, battery electrolytes (lead-acid and lithium-based UPS systems), water treatment chemicals, and refrigerants. If accidental releases or equipment failures were to occur, localized soil or groundwater contamination could result that may require remediation and could not be immediately reversed.

The following regulatory programs and Project design measures substantially reduce the likelihood and potential magnitude of such events:

- Spill Prevention, Control, and Countermeasure (SPCC) Plan pursuant to 40 CFR Part 112, required for the six 100,000-gallon diesel storage tanks, establishing secondary containment, inspection, and response protocols.
- Emergency Planning and Community Right-to-Know Act (EPCRA) Tier II reporting for materials at or above threshold quantities, ensuring local emergency responders have access to material inventory information.
- Hazardous Materials Business Plan (HMBP) and registration with the California Environmental Reporting System (CERS) pursuant to California Health & Safety Code Section 25500, establishing response plans for all regulated materials.
- CalARP Risk Management Plan (RMP) applicability analysis completed in Section 4.9; no listed regulated substances are stored above Program 2 or Program 3 thresholds.
- Final hazardous materials inventory tables (Tables 4.9-2 and 4.9-3) will be filed as supplements upon completion of final engineering, as identified in Section 3.2.

The potential for localized, lasting environmental effects from unplanned events cannot be entirely eliminated over the Project's 25–30-year operational life. This residual risk is characteristic of industrial facilities of this type and scale and is appropriately managed through the regulatory programs and design measures described above. Impacts related to hazardous materials are less than significant with implementation of applicable regulatory requirements and Project Design Measures.

8.7 Cultural and Tribal Cultural Resources

Ground-disturbing activities associated with Project construction have the potential to encounter previously unidentified prehistoric or historic archaeological resources, human remains, or tribal cultural resources in subsurface deposits. The Cultural Resources Report (Appendix M.2), which encompasses the full Project APE including all linear facilities and required survey buffers, documents the results of archival records searches and Phase I field surveys conducted by qualified professionals meeting the Secretary of the Interior's Professional Standards for archaeology.

Mitigation Measures MM 4.5-1 through MM 4.5-4 and MM 4.17-1 through MM 4.17-5 require pre-construction and construction-phase archaeological monitoring, Native American monitoring during ground disturbance, inadvertent discovery protocols, and consultation with interested Native American tribes. NAHC Sacred Lands File request letters were submitted on December 22, 2025 and January 23, 2026; responses and tribal outreach correspondence will be filed with the CEC as supplements upon receipt, as identified in Section 3.1. With implementation of these measures, impacts to cultural and tribal cultural resources are less than significant; however, the disturbance and permanent displacement of any subsurface resources encountered during construction would represent an irreversible change.

8.8 Changes That Are Reversible or Partially Reversible

Not all Project-associated changes are irreversible. The following effects are considered temporary or reversible in nature:

- Construction-phase air quality emissions and fugitive dust: temporary in nature, ceasing upon completion of construction and not resulting in lasting impairment of regional air quality.
- Construction noise and vibration: limited to the 48-month construction period; no permanent noise sources are introduced by construction activities.
- Construction worker traffic: temporary increases in local vehicle miles traveled during the construction period, not continuing into operations.
- Ground disturbance outside the permanent development footprint: areas disturbed for temporary staging, access, or construction activities outside the permanent footprint would be restored consistent with the SWPPP and applicable permit conditions.
- Facility closure and site restoration: the Facility Closure Plan (Section 1.12) provides for demolition of all aboveground structures and equipment, removal or abandonment-in-place of subsurface utilities, assessment and remediation of areas of potential concern, and site restoration following permanent cessation of operations. While full restoration to pre-project conditions cannot be guaranteed after 25–30 years of industrial use, the facility is not a permanent structure and decommissioning is technically feasible.

8.9 Conclusion

The Project would result in the following categories of irreversible or irretrievable environmental changes:

Category of Change	Nature of Irreversibility	Significance After Mitigation
Permanent conversion of ~38.18 acres undeveloped desert scrub	Long-term industrial use; restoration feasible at decommissioning but not certain after 25–30 years	Less Than Significant
Long-term infrastructure dedication (substation, transmission, water/sewer, fuel storage)	Infrastructure designed for 25–30-year life; constrains land use for operational period	Less Than Significant

Category of Change	Nature of Irreversibility	Significance After Mitigation
Construction materials (concrete, steel, electrical equipment)	Irretrievable incorporation into permanent structures	Less Than Significant
Operational energy: ~867,240 MWh/yr grid electricity	Ongoing consumption throughout operational life; mitigated by best-in-class PUE of 1.41–1.41	Less Than Significant
Diesel fuel: ~121,900 gal/yr (testing/emergency use)	Irretrievable combustion; mitigated by Tier 4 Final equivalent aftertreatment	Less Than Significant
Operational GHG: 2,379 MT CO ₂ e/yr (on-site)	Permanent atmospheric contribution; well below EKAPCD 25,000 MT/yr threshold	Less Than Significant
Permanent removal of ~38.18 acres Mojave Desert scrub habitat	Habitat loss irreversible during operational life; no special status plant communities affected; CDFW Incidental Take Permit mitigation reduces special status animal species impacts	Less Than Significant
Potential disturbance of Pleistocene-age paleontological deposits	Resources destroyed by excavation are irrecoverable; monitoring and curation reduce significance	Less Than Significant with MM 4.7-1 through MM 4.7-4
Operational air emissions (NO _x ~22–23 tons/yr; GHG 2,379 MT CO ₂ e/yr)	Once emitted, cannot be recovered; below all applicable significance thresholds	Less Than Significant
Potential for accidental release of hazardous materials	Localized contamination may require long-term remediation	Less Than Significant with regulatory compliance and PDMs

Category of Change	Nature of Irreversibility	Significance After Mitigation
Potential disturbance of subsurface cultural/tribal resources	Destroyed resources are irrecoverable; monitoring, discovery protocols, and tribal consultation reduce significance	Less Than Significant with MM 4.5-1-4 and MM 4.17-1-5

None of the irreversible environmental changes identified above are considered significant after implementation of the identified mitigation measures and Project Design Measures. The irreversible changes associated with the Project are typical of industrial facilities of this type and scale and are consistent with the land use designations and development expectations established for the Project Site and surrounding area under the Kern County General Plan, the Kern County Zoning Ordinance, and the Inyokern Specific Plan.

The RBIDC serves a critical infrastructure function — providing secure, high-availability data processing capacity for regional critical infrastructure, defense-adjacent commercial clients, and the broader digital economy — that constitutes a substantial public benefit justifying the irreversible resource commitments identified in this section. These commitments are proportionate to the Project’s purpose and scale and have been minimized to the extent feasible through energy efficiency design, Tier 4 Final equivalent emission controls, best-available paleontological and biological mitigation, and a comprehensive Facility Closure Plan providing for site restoration at end of life.

SECTION 9.0 – REFERENCES

R&L Capital, Inc.	RB Inyokern Data Center Small Power Plant Exemption (SPPE) Application
BSK Associates	Phase I Environmental Site Assessment, Kern County APNs 084-010-43, 084-010-44, 084-010-45, and 084-010-48 (BSK Project No. E25001187)
BSK Associates	Preliminary Soil and Geology Evaluation, Proposed Data Center, Inyokern, California (BSK Project No. G25001225)
Quad Knopf, Inc.	Biological Analysis Report – RB Inyokern Data Center Project (Project No. 160268.05)
Quad Knopf, Inc.	Hydrology Study – Inyokern Data Center, Inyokern, California (Project No. 160268.05)
ASTM International	ASTM E1527-21: Standard Practice for Environmental Site Assessments – Phase I Environmental Site Assessment Process
California Energy Commission (CEC)	Small Power Plant Exemption Regulations, Title 20, California Code of Regulations, Section 1934 et seq.
California Energy Commission (CEC)	Appendix B to Title 20 CCR – Information Requirements for an Application for Certification or Small Power Plant Exemption
State of California	California Environmental Quality Act (CEQA) Guidelines, Title 14 California Code of Regulations, Section 15000 et seq.

California Geological Survey (CGS)	Geologic Map of California
California Department of Conservation	Alquist-Priolo Earthquake Fault Zoning Maps
California Department of Water Resources (DWR)	Bulletin 118 – California Groundwater Basin Descriptions (Indian Wells Valley Basin)
Federal Emergency Management Agency (FEMA)	Flood Insurance Rate Maps (FIRM), Kern County, California
National Oceanic and Atmospheric Administration (NOAA)	NOAA Atlas 14, Volume 6 – Precipitation Frequency Estimates
United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS)	Web Soil Survey – Mojave Desert Area, Northwest Part
Western Regional Climate Center (WRCC)	Inyokern, California Climate Data
Kern County	Kern County Floodplain Management Code
Kern County	Kern County Grading Ordinance and Engineering Design Standards
California State Water Resources Control Board (SWRCB)	NPDES Construction General Permit (Order No. 2009-0009-DWQ, as amended)

U.S. Fish and Wildlife Service (USFWS)	Information for Planning and Consultation (IPaC) and Species Lists
California Department of Fish and Wildlife (CDFW)	California Natural Diversity Database (CNDDB)
Quad Knopf, Inc.	Trip Generation & VMT Comments (Revision 0, February 9, 2026)
California Governor's Office of Planning and Research (OPR)	Technical Advisory on Evaluating Transportation Impacts in CEQA
Institute of Transportation Engineers (ITE)	Trip Generation Manual (latest edition)
Quad Knopf, Inc.	Water Supply Assessment for RB Inyokern Data Center
CalEPA (California Environmental Protection Agency)	The Water Rights Process: Groundwater Rights
California Department of Water Resources (DWR)	Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001
California Department of Water Resources (DWR)	California's Groundwater (Bulletin 118)
Indian Wells Valley Groundwater Authority	Groundwater Sustainability Plan (GSP)

Indian Wells Valley Groundwater Authority	2025 Periodic Evaluation
California Department of Water Resources (DWR)	California Well Standards (Bulletin 74)
Kern County	Kern County Code, Title 14
Quad Knopf, Inc.	Air Quality Impact Analysis – RB Inyokern Data Center Project
Yorke Engineering, LLC	Thermal Plume Analysis – RB Inyokern Data Center
ASM Affiliates	Phase I Survey of the Inyokern Data Center Project, Kern County, California
San Diego Natural History Museum – Department of PaleoServices	Paleontological Resources Technical Report – Inyokern Data Center Study, Inyokern, Kern County, California
Eastern Kern Air Pollution Control District (EKAPCD)	Attainment Status
Eastern Kern Air Pollution Control District (EKAPCD)	District Policy: Addendum to CEQA Guidelines Addressing GHG Emission Impacts from Stationary Source Projects When Serving As Lead CEQA Agency
Eastern Kern Air Pollution Control District (EKAPCD)	Rule 210.1 "New and Modified Stationary Source Review (NSR)"

Eastern Kern Air Pollution Control District (EKAPCD)	Guidelines for Implementation of the California Environmental Quality Act of 1970
Eastern Kern Air Pollution Control District (EKAPCD)	Rule 208.2 "Criteria for Finding of No Significant Environmental Impact (California Environmental Quality Act)"
Kern Council of Governments (Kern COG)	Draft Air Quality Conformity Analysis
Kern County Planning Department (KCPD)	Kern County General Plan Recirculated Program Environmental Impact Report
Native American Heritage Commission (NAHC)	Sacred Lands File (SLF) Search
California Historical Resources Information System (CHRIS)	Cultural Resources Records Search (Information Center)

SECTION 10.0 – CONSULTANTS AND PREPARERS

10.1 Agency Contacts

The following table provides the name, title, address, telephone number, and email address for officials contacted within each agency with jurisdiction over or permitting authority for the Project, consistent with 20 CCR Division 2, Chapter 5, Appendix B, Section (i)(2). Contacts noted as “To be confirmed prior to completeness determination” will be provided to Commission Staff as a supplement prior to the completeness determination.

Agency	Name / Title	Address	Phone / Email
California Energy Commission (Lead Agency — SPPE)	Ali Jahani, Project Manager,	715 P Street, Sacramento, CA 95814	279-226-1175 ali.jahani@energy.ca.gov
Kern County Planning and Natural Resources Department (CUP / Land Use)	Craig M. Murphy, Director Assigned project planner to be confirmed upon CUP filing	2700 M Street, Suite 100, Bakersfield, CA 93301	(661) 862-8600 planning@kerncounty.com
Kern County Local Agency Formation Commission (LAFCo)	Blair Knox, Executive Officer	5300 Lennox Ave, Suite 303, Bakersfield, CA 93309	(661) 716-1076 eo@kernlafco.org
Inyokern Community Services District (Water and Sewer Service)	Holly Gallier, General Manager	1429 Broadway, P.O. Box 1418, Inyokern, CA 93527	(760) 878-0002 manager@inyokerncsd.com
Eastern Kern Air Pollution Control District (EKAPCD)	Gary Ray, Jr., Air Pollution Control Officer	2700 M Street, Suite 302, Bakersfield, CA 93301-2370	(661) 862-5250 ekapcd@kerncounty.com
Southern California Edison (SCE) —	Grid Interconnection Contact (MOS174)	2244 Walnut Grove Ave, Rosemead, CA 91770	(909) 274-1106 interconnectionQA@sce.com

Grid Interconnection			Project-specific contact to be confirmed
Kern County Fire Department (Fire Prevention)	Aaron Duncan, Fire Chief Fire Prevention Bureau	5642 Victor Street, Bakersfield, CA 93308	(661) 391-3310 fireprevention@kerncountyfire.org
Kern County Environmental Health Services (CUPA — HMBP)	To be confirmed prior to completeness determination	2700 M Street, Suite 204, Bakersfield, CA 93301	(661) 862-8700 To be confirmed prior to HMBP filing
State Water Resources Control Board (SWRCB) — Construction General Permit	Water Quality Programs	1001 I Street, Sacramento, CA 95814 P.O. Box 100, Sacramento, CA 95812-0100	(916) 341-5455 waterboards.ca.gov

10.2 Consultants and Preparers

Organization	Role and Key Preparers
R&L Capital, Inc. P.O. Box 907, Trona, CA 93592	Project Applicant and SPPE Application Preparer Analysis, application preparation, and project management performed in-house. Project Contact: Robbie Barker.
Valley Wide Engineering & Construction, Inc. P.O. Box 907, Trona, CA 93592	Application Preparer Analysis, application preparation, and project management performed in-house.
Jun Y Lee LLC 6605 Grand Montecito Pkwy, Suite 100, Las Vegas, NV, 89149	Principal Preparer SPPE and CEQA EIR components, Preparation of SPPE Application. Key Preparer: Jun Y. Lee, JD

Organization	Role and Key Preparers
Quad Knopf, Inc. 5080 California Avenue, Suite 220, Bakersfield, CA 93309	Environmental and Engineering Consultants Biological Resources, Hydrology and Drainage, Air Quality / GHG / Health Risk, Water Supply Assessment Project Contact: Jaymie L. Brauer
BSK Associates 4820 Rosedale Lane, Bakersfield, CA 93314	Environmental, Geotechnical, and Analytical Testing Environmental Due Diligence, Geology and Soils, Seismic and Geotechnical Engineering Key Preparers: Adam Terronez, PE, GE (Managing Principal); Neil McConnell, PG, CEG (Senior Associate)
Provost & Pritchard Consulting Group 1518 Mill Rock Way, Suite 100, Bakersfield, CA 93311	Transportation / Traffic Trip Generation / VMT Analysis
ASM Affiliates 4800 Stockdale Highway, Suite 405, Bakersfield, CA 93309	Cultural Resources Consultants Phase I Survey, Records Search, DPR 523 Forms Key Preparers: Robert Azpitarte, MA (Associate Archaeologist); Ashlee Younie, MA, RPA (Senior Archaeologist)
San Diego Natural History Museum Department of PaleoServices P.O. Box 121390, San Diego, CA 92112-1390	Paleontological Resources Key Preparers: Zev Brook, M.S. (Report Writer); Katie M. McComas, M.S. (Senior Paleontologist); Thomas A. Deméré, Ph.D. (Principal Paleontologist)
Yorke Engineering, LLC Multiple California Locations	Environmental / Air Quality Consulting Thermal Plume & Nitrogen Analysis (Airport/Aviation)
PowerPulse LLC PO Box 830, Alamo, California	Electrical Engineering Consultant Electrical One-Lines, POI & Subtransmission Line Exhibits, Substation One-Line
RESET® Standard Certification www.reset.build	Sustainability and Performance Monitoring Framework RESET Embodied (Carbon, Circularity, Health) and RESET Operational (Air, Energy, Water, Waste) Standards implementation and continuous monitoring platform integration. Key Preparer: Enoch Lim.

Consultant and preparer contact information is maintained in the Project record and will be provided to Commission Staff upon request. Technical study authors and firm affiliations are identified within each technical appendix (Appendices A.1 through N.3).

SECTION 11.0 – ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AB 32	Assembly Bill 32 (California Global Warming Solutions Act of 2006)
AC	Alternating Current
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
AERMOD	AMS/EPA Regulatory Model (air dispersion model)
AF	Acre-Feet
AFC	Application for Certification
AFY	Acre-Feet per Year
ALUCP	Airport Land Use Compatibility Plan
AMSL	Above Mean Sea Level
AP-42	Compilation of Air Pollutant Emission Factors (USEPA)
APN	Assessor's Parcel Number
ASTM	ASTM International
BACT	Best Available Control Technology
BAR	Biological Analysis Report
BAS	Building Automation System
BLM	Bureau of Land Management
BMP	Best Management Practice
BSA	Biological Study Area
BSK	BSK Associates
CA	California
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEG	Certified Engineering Geologist
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGF	California Fish and Game Code
CHRIS	California Historical Resources Information System
CHWR	Chilled Water Return
CHWS	Chilled Water Supply
CNDDDB	California Natural Diversity Database

CNDPA	California Native Desert Plants Act
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO2e	Carbon Dioxide Equivalent
CREC	Controlled Recognized Environmental Condition
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSD	Community Services District
CUP	Conditional Use Permit
CWA	Clean Water Act
DEF	Diesel Exhaust Fluid
DPF	Diesel Particulate Filter
DPR	California Department of Parks and Recreation
DR	Data Request
DWR	California Department of Water Resources
EDR	Environmental Data Resources, Inc.
EIR	Environmental Impact Report
EKAPCD	Eastern Kern Air Pollution Control District
EMFAC	EMission FACtors model (CARB)
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
EV	Electric Vehicle
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
GE	Geotechnical Engineer
GHG	Greenhouse Gas
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
H&H	Hydrology and Hydraulics
HARP	Hotspots Analysis and Reporting Program
HCM	Highway Capacity Manual
HRA	Health Risk Assessment
HREC	Historical Recognized Environmental Condition
HRI	Historic Resource Inventory (number)
HVAC	Heating, Ventilation, and Air Conditioning
IPaC	Information for Planning and Consultation

IT	Information Technology
ITE	Institute of Transportation Engineers
IWV	Indian Wells Valley
IWVGA	Indian Wells Valley Groundwater Authority
KernCOG	Kern Council of Governments
kV	Kilovolt
kW	Kilowatt
LAFCo	Local Agency Formation Commission
LDV	Light-Duty Vehicle
LEED	Leadership in Energy and Environmental Design
LID	Low Impact Development
LOS	Level of Service
MAWA	Maximum Applied Water Allowance
MBTA	Migratory Bird Treaty Act
MDB&M	Mount Diablo Base and Meridian
MG	Million Gallons
MGY	Million Gallons per Year
MND	Mitigated Negative Declaration
MOS	Method of Service
MW	Megawatt
NAAQS	National Ambient Air Quality Standards
NAWS	Naval Air Weapons Station
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOx	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NSR	New Source Review
NWI	National Wetlands Inventory
OFFROAD	CARB OFFROAD emissions model
OPR	California Governor's Office of Planning and Research
OWTS	Onsite Wastewater Treatment System
PE	Professional Engineer
PG	Professional Geologist
PLC	Programmable Logic Controller
PM	Particulate Matter
PM10	Particulate Matter ≤ 10 micrometers
PM2.5	Particulate Matter ≤ 2.5 micrometers

POI	Point of Interconnection
QK	Quad Knopf, Inc.
RBIDC	RB Inyokern Data Center
REC	Recognized Environmental Condition
ROG	Reactive Organic Gases
ROW	Right-of-Way
RWQCB	Regional Water Quality Control Board
SB 610	Senate Bill 610 (Water Supply Planning Law)
SB 743	Senate Bill 743
SBB&M	San Bernardino Base and Meridian
SCE	Southern California Edison
SF	Square Feet
SFHA	Special Flood Hazard Area
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SMARTS	Storm Water Multiple Application and Report Tracking System
SO _x	Oxides of Sulfur
SPPE	Small Power Plant Exemption
SR	State Route
STEP	Siting, Transmission and Environmental Protection
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TDM	Transportation Demand Management
Tier III	Tier III Data Center Reliability Standard
Title 24	California Building Standards Code
TMDL	Total Maximum Daily Load
UPS	Uninterruptible Power Supply
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
V/C	Volume-to-Capacity Ratio
VEC	Vapor Encroachment Concern
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VRF	Variable Refrigerant Flow
Vs30	Average Shear Wave Velocity to 30 Meters
WDID	Waste Discharge Identification Number
WRCC	Western Regional Climate Center

WSA	Water Supply Assessment
WY	Water Year