Strategic Reliability Reserve Environmental Review for the Lodi Surface Water Treatment Facility Site

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Acronyms and Abbreviations

Acronym	Definition
AAQA	ambient air quality analysis
APN	Assessor's Parcel Number
BACT	best available control technology
BMP	best management practice
CAISO	California Independent System Operator
CBC	California Building Code
CEQA	California Environmental Quality Act
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DWR	California Department of Water Resources
L_{eq}	equivalent continuous sound level
MS4	Municipal Separate Storm Sewer System
NOx	oxides of nitrogen
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PM_{10}	particulate matter 10 microns in diameter or smaller
$PM_{2.5}$	particulate matter 2.5 microns in diameter or smaller
RTP/SCS	Regional Transportation Plan and Sustainable Communities Strategy
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_2	sulfur dioxide
SR	State Route
SRR	Strategic Reliability Reserve
SWRCB	State Water Resources Control Board
SWTF	Surface Water Treatment Facility
VMT	vehicle miles traveled

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1 Introduction

California Assembly Bill 205 and Assembly Bill 209 created a state-led Strategic Reliability Reserve (SRR) program to be developed by the California Department of Water Resources (DWR) in conjunction with its sister state agencies, the California Energy Commission and the California Air Resources Board. As part of the SRR program, DWR is looking to develop new emergency and temporary generators, new energy storage systems, and clean energy generation projects, and generate funding for an extension of existing generation operations. This effort is just one part of California's broader effort to safeguard the state's energy system in the face of climate-induced drought, wildfires, and heat waves that are impacting the state's energy grid. The equipment installed as part of the SRR program would be used only in extreme peak-demand events to provide temporary power generation to stabilize and supplement existing grid-tied power supplies to avoid grid failures.

DWR is currently procuring, installing, and licensing emergency generator units at existing facilities (proposed project). The units would be placed at a developed facility to feed directly into the grid as needed and at the direction of the California Independent System Operator (CAISO) in response to an emergency event when supplemental power supply is required. The units would be operational by summer 2023.

Assembly Bill 205 establishes a process to streamline approval and construction of new energy projects by exempting the projects from the California Environmental Quality Act (CEQA) and establishing a streamlined California Energy Commission review and certification process for applications for new energy generation projects. In the interest of addressing the need for immediate additional power generation capacity to provide adequate power supply throughout California during peak-demand events, Assembly Bill 205 also provides for DWR to self-certify certain temporary energy generation projects. This document analyzes the potential environmental impacts of SRR temporary energy generation facilities proposed by DWR under the self-certification process.

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2 Project Design, Operation, and Location

A. A detailed description, including drawings of the project's major structures, of the design, methods of construction and operation of the facilities

Project Design

As shown in Figure 2-1, Project Location (all figures can be found in Appendix A), the proposed project would be northeast of the Lodi Surface Water Treatment Facility (SWTF) within a parcel owned by the City of Lodi. The proposed project would include installation of 123 natural gas generators. The generators would be arranged in 25 rows on the project site; 24 rows would contain five generators, and one row would contain three generators (see Figure 2-2, Project Site Layout). Associated infrastructure proposed for installation adjacent to the generators would include 25 transformers, and four electric switchgear boxes. Each generator would be housed in an enclosure with maximum dimensions of 120 inches by 96 inches by 142 inches (length by width by height). The overall footprint of the proposed generators would be a rectangle measuring approximately 140 feet by 440 feet, oriented northwest/southeast, directly adjacent to the SWTF. The southern and eastern boundaries of the project site would be enclosed by an 8-foot-tall chain-link fence; the western boundary of the project site would be bordered by the SWTF and a 15-foot-tall concrete wall; and the northern boundary of the project site would be enclosed by a 15-foot-tall concrete wall.

All 123 generators would be identical and have an engine rating of 673 horsepower. Collectively, the generators would be capable of producing up to 48 megawatts of electricity. When in operation, the generators would operate in grid synchronous mode at 480 volts. The generator facility would be operated temporarily to provide emergency power in the event the CAISO-controlled grid cannot support periods of peak demand, or to prevent grid failure as a result of extreme weather events or other power disruptions. The installed generators would be capable of delivering emergency power at any time, but annual operations are not expected to exceed 300 hours per year. This would include operation and monthly tests that are required as part of standard operations.

The Enchanted Rock generators use an efficient, ultra-low-emissions natural gas engine; permanent magnet generator alternator with electronic voltage regulator; isochronous electronic governor; sound attenuated enclosure; smart battery charter; and motorized synchronizing circuit breaker. Each generator would have a dual exhaust, with each exhaust having its own emissions point/stack. The stacks would feature rain flaps and would extend 2 inches above the generator enclosure. Each stack would have an inner stack diameter of 5 inches. Total absolute volumetric flow rate from each engine would be 2,754 cubic feet per minute and a maximum exhaust temperature of 1,193°F. The units would be air cooled. Fuel for the generators would be pipeline-quality natural gas from Pacific Gas & Electric delivered to the site via Pacific Gas & Electric pipeline infrastructure. A natural gas meter would be located in the northwestern corner of the project site. The system would not require energy storage. Emissions from combustion would be controlled via non-selective catalytic reduction.

The generators would deliver power to the grid via a connection to the City of Lodi substation, southwest of the project site, on the southwestern side of the Lodi SWTF. Work required to connect the generator facility

to the substation would include excavating and trenching for installation of a distribution line from the switchgear to new circuit breakers at the substation to be installed alongside the existing substation bay.

Construction

Construction of the proposed project is expected to begin in March 2023 and have a duration of 4 to 6 months. Construction would include site preparation and grading of approximately 61,000 square feet of land for installation of the generators. No demolition would be required as part of site preparation. There would be approximately 900 feet of trenching for pipe and electric conduit on the project site. Proposed trenches would range from 3 feet wide by 3 feet deep, to 6 feet wide by 6 feet deep. All displaced soil from trenching would be reused on site to the extent feasible, and no import or export of soil is anticipated; however, some soil import/export may occur, and associated haul truck trips have been incorporated into the analysis contained in Chapter 3, Environmental Information. The area proposed for installation of the generators would be surfaced with several inches of compacted crushed concrete base rock. The anticipated schedule, vehicle trips, and equipment that would be used to construct the project are identified in Table 1.

Table 1. Construction Activities, Schedule, Vehicle Trips, and Equipment

Construction Phase	Start Date*	End Date*	One-Way Vehicle Trips			Equipment		
			Ave. Daily Worker Trips	*Ave. Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Usage Hours*
Site Preparation	3/15/2023	3/29/2023	10	4	16	Graders	1	8
						Scrapers	1	8
						Tractors/Loaders /Backhoes	1	8
Grading	3/30/2023	05/9/2023	10	4	30	Graders	1	8
						Rubber-Tired Dozers	1	8
						Tractors/Loaders /Backhoes	2	8
Trenching	5/10/2023	5/24/2023	10	0	0	Default Equipment		
Civil Construction /Generator Installation	5/10/2023	7/31/2023	50	10	65	Cranes	1	8
						Forklifts	2	8
						Generator Sets	1	8
						Tractors/Loaders /Backhoes	1	8
						Welders	3	8
Energization	8/1/2023	N/A	10	0	0	N/A	0	0

*Start and end dates are estimated based on best available information at the time of preparation this document and provide a conservative estimate for technical modeling and analysis.

Operation

The proposed project is anticipated to be operational by July 2023. Personnel would not be required on site regularly for operation; the generators would be operated remotely. Personnel would visit the site periodically throughout the year for scheduled maintenance, and the generators would be test-operated approximately once per month during daylight hours; up to 200 operational trips per year are anticipated. The generator facility would initially be available for emergency use for a 5-year timeframe, ending in July 2028. After 5 years, the property owner would have the option of purchasing the generator facility. Operation of the generator facility after the initial 5-year term would be subject to subsequent certification of the generator facility by the California Energy Commission.

Decommissioning

If, after 5 years, the generator facility is not purchased by the property owner, the units would be decommissioned and removed. Infrastructure related to utilities (i.e., gas, electricity, and water) at the site would remain, but all detachable items would be removed from site. As such, underground cabling and piping would be left in place, and only aboveground items would be removed.

B. A detailed description of the design, construction, and operation of any electric transmission facilities.

See Section 2(A). Project Description.

C. An explanation of the site selection criteria establishing whether the location selected for the proposed site and related facilities is an optimal location based on the potential to improve reliability, reduce the occurrence of public safety power shutoffs, decrease the use of high-emission backup power, minimize air pollution, and avoid impacts on disadvantaged communities, as identified pursuant to Section 39711 of the Health and Safety Code.

The project site was selected based on a rigorous site selection process with three tiers of screening totaling 39 separate screening criteria. The criteria considered location, existing capacity, climate/environmental conditions, economic impacts, and more. The project site scored high when all potential criteria were considered, and was ultimately selected due to its ability to meet DWR's objectives for this SRR effort.

The project site is strategically located adjacent to an existing energy infrastructure site and would therefore serve to improve local electric grid reliability in existing service areas and prevent power shutoffs and other interruptions of power provision during emergency events. The potential impact to disadvantaged communities was considered as one of the criteria for site selection and location, and it was determined that no impacts to disadvantaged communities would occur with project implementation.

D. A narrative that describes whether the proposed site and related facilities would be capable of delivering energy during net peak hours in response to a dispatch by the Independent System Operator during extreme events and would have access to the infrastructure and resources needed to operate.

The generator facility would feed into the grid as needed in response to a CAISO-declared emergency event. The generator facility would be brought online to prevent grid failure during extreme weather events. When in operation, the generator facility would be capable of delivering 48 megawatts of additional Peaker energy during such an event. The installed generators would be capable of delivering temporary power at any time, but annual operations are not expected to exceed 300 hours per year.

2.1 Project Schedule

A. Proposed dates of initiation and completion of construction, initial start-up, and full-scale operation of the proposed facilities. Include a discussion of anticipated project duration and potential operation beyond initial term of operation and/or decommissioning, as applicable.

See Table 1 for the anticipated construction schedule and associated activities. Construction would occur over 6 months, beginning in March 2023 and ending in July 2023. Once operational, the project is intended to remain operational as temporary emergency generators for an initial term of approximately 5 years. After this initial term, the property owner would have the option of purchasing the emergency generator units for continued use, or the generator units would be decommissioned, as described in Section 2(A).

2.2 Project Ownership

A. A list of all owners and operators of the site(s) and the facilities.

The property containing the project site is owned by the City of Lodi and the proposed facility would be owned by DWR once constructed. The facility would be maintained and operated by Enchanted Rock, who would have a site License Agreement with the City of Lodi for use of the land. The City of Lodi substation is owned and operated by the City of Lodi.

3 Environmental Information

3.1 Air Quality and Greenhouse Gas Emissions

A. ***A description of how the proposed facility meets the requirements of the applicable new source review rule and all other applicable district regulations.***

The San Joaquin Valley Air Pollution Control District (SJVAPCD) regulates air quality in eight counties: Fresno, Kern (western and central), Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. The SJVAPCD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the San Joaquin Valley Air Basin. The project site is in the City of Lodi and under the jurisdiction of the SJVAPCD. As shown in Appendix B, Air Quality and Greenhouse Gases Technical Memorandum, the project would comply with applicable regulations and would meet SJVAPCD thresholds for new source review. The project has submitted an Authority to Construct to the SJVAPCD for review and approval. As shown in Appendix B, the project's estimated annual construction and operational emissions would be below the applicable SJVAPCD's thresholds of significance, which are based on new source review offset thresholds. Pursuant to SJVAPCD Rule 2201, New and Modified Stationary Source Review Rule, best available control technology (BACT) requirements are triggered on a pollutant-by-pollutant basis and on an emissions-unit-by-emissions-unit basis. Any new emissions unit with a potential to emit more than 2 pounds per day of criteria air pollutant is subject to BACT. The SJVAPCD does not currently have an approved BACT guideline for this source category (natural-gas-fired internal combustion engines powering electrical generators); therefore, a project-specific BACT determination will be made for the project during the SJVAPCD permitting process. Additionally, through the permitting process, the SJVAPCD will conduct an ambient air quality analysis (AAQA) and health risk assessment. Pursuant to SJVAPCD policies, the project would not be permitted if it causes a violation of an ambient air quality standard or an increase in cancer risk greater than the SJVAPCD's thresholds. Accordingly, the project would be in compliance with new source review and SJVAPCD regulations.

B. ***A description of the control technologies proposed to limit the emission of criteria pollutants.***

The proposed generators would have non-selective catalytic reduction to reduce oxides of nitrogen (NO_x) emissions.

C. ***Representative meteorological data approved by the California Air Resources Board or the local air pollution district.***

A summary of climate and topography is provided in Appendix B. The information is excerpted from the 2015 SJVAPCD's Guide for Assessing and Mitigation Air Quality Impacts (SJVAPCD 2015a).

D. An evaluation of the project's air quality impacts, consisting of the following:

- *An analysis of the criteria pollutant impacts of project construction activities, including fugitive dust (PM_{10}) emissions from grading, excavation and site disturbance, as well as the combustion emissions [nitrogen oxides (NOx), sulfur dioxide (SO_2), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM_{10}) and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$)] from construction-related equipment according to local air district requirements;*

- *A screening level air quality modeling analysis of the direct criteria pollutant (NOx, SO_2, CO, and PM_{10} and $PM_{2.5}$) impacts on ambient air quality during project operation.*

Appendix B provides a summary of the project's potential construction and operational impacts relative to estimated annual emissions and applicable SJVAPCD regional thresholds established for the protection of air quality and attainment of air quality standards. As shown in Tables 4 and 5 of Appendix B, the project's estimated construction and operational emissions of NO_x, sulfur dioxide (SO_2), carbon monoxide (CO), particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) would be below the SJVAPCD thresholds.

For projects subject to CEQA, the SJVAPCD provides an ambient air quality screening level to determine if refined dispersion modeling through an AAQA is recommended. The SJVAPCD recommends an AAQA when a stationary source project would result in an increase of 100 pounds per day screening level of any criteria pollutant for construction, operational permitted sources, and/or operational non-permitted source.

The project's construction emissions of NO_x, SO_2, CO, PM_{10}, and $PM_{2.5}$ would be less than the SJVAPCD's screening level thresholds of 100 pounds per day (see Table 6 in Appendix B). The project's operational emissions of NO_x and SO_2 would not exceed the SJVAPCD's screening thresholds; however, CO, PM_{10}, and $PM_{2.5}$ would exceed 100 pounds per day. Pursuant to the SJVAPCD's permitting process, the SJVAPCD will perform an AAQA to determine whether a new or modified stationary source would cause or make worse a violation of a federal or state ambient air quality standard (SJVAPCD 2019). The project would be required to comply with SJVAPCD permitting requirements, and as such, if the AAQA determines that an ambient air quality standard violation could result, refinements to the project operations would be required to ensure no violation of ambient air quality standards would occur. Accordingly, compliance with SJVAPCD permitting requirements would reduce potential localized air quality impacts, and no violation of SJVAPCD standards would occur.

E. 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.

The project would not require mitigation beyond compliance with SJVAPCD's new source review permitting process.

F. A discussion of project consistency with Greenhouse Gas Emissions Reduction Plan

As discussed in Appendix B, the project would be consistent with applicable greenhouse gas reduction measures included in DWR's Greenhouse Gas Emissions Reduction Plan (DWR 2020). The project's estimated GHG construction emissions would total approximately 132 metric tons of carbon dioxide

equivalent (CO_2e), which is well below DWR's Extraordinary Construction Project Determination thresholds of 25,000 metric tons of CO_2e for the entire phase of construction, or 12,500 metric tons of CO_2e for any single year of construction.

DWR has adopted best management practices (BMPs) for construction and maintenance activities, and made significant changes to its construction project specification requirements to help reduce construction emissions. Construction BMPs apply to all construction and maintenance projects that DWR completes or for which DWR issues contracts. The following is a list of potential BMPs that would be incorporated into the project:

- Minimize idling time by requiring that equipment be shut down after 5 minutes when not in use (as required by the state airborne toxics control measure [13 CCR Section 2485]). Provide clear signage that posts this requirement for workers at the entrances to the project site, and provide a plan for the enforcement of this requirement.
- Maintain all construction equipment in proper working condition and perform all preventive maintenance. Required maintenance includes compliance with all manufacturer's recommendations, proper upkeep and replacement of filters and mufflers, and maintenance of all engine and emissions systems in proper operating condition. Maintenance schedules will be detailed in an Air Quality Control Plan prior to commencement of construction.
- Implement a tire inflation program on jobsite to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on site and every 2 weeks for equipment that remains on site. Check vehicles used for hauling materials off site weekly for correct tire inflation. Procedures for the tire inflation program will be documented in an Air Quality Management Plan prior to commencement of construction.
- Develop a project-specific ride share program to encourage carpools and shuttle vans, and provide transit passes and secure bicycle parking for construction worker commutes.
- For deliveries to project sites where the haul distance exceeds 100 miles and a heavy-duty class 7 or class 8 semi-truck or 53-foot or longer box-type trailer is used for hauling, use a SmartWay[1] certified truck to the maximum extent feasible.
- Develop a project-specific construction debris recycling and diversion program to achieve a documented 50% diversion of construction waste.
- Evaluate the feasibility of restricting all material hauling on public roadways to off-peak traffic congestion hours. During construction scheduling and execution, minimize, to the extent possible, uses of public roadways that would increase traffic congestion.

The project would implement construction BMPs through the contracting process. As such, construction of the project would be consistent with, and would not impede, DWR's implementation of its Greenhouse Gas Emissions Reduction Plan.

There are no Greenhouse Gas Emissions Reduction Plan (DWR 2020) operation or maintenance measures that would apply to the project. As discussed in Appendix B, the project would be consistent with, and would not impede, DWR's implementation of its Greenhouse Gas Emissions Reduction Plan.

[1] The U.S. Environmental Protection Agency has developed the SmartWay truck and trailer certification program to set voluntary standards for trucks and trailers that exhibit the highest fuel efficiency and emissions reductions (www.epa.gov/smarway).

3.2 Biological Resources

A. A regional overview and discussion of terrestrial and aquatic biological resources, with particular attention to sensitive biological resources. In the discussion include a list of the USGS topographic quadrangle(s) utilized to search records from the California Natural Diversity Database (CNDDB), and a citation which includes the date the CNDDB was accessed. Include a map showing sensitive biological resource location(s) in relation to the project site and any boundaries of a local Habitat Conservation Plan or similar open space land use plan or designation.

The potential for special-status species to occur within the project site was determined by analyzing identified species against available information on preferred habitats and vegetation communities, soil substrates, and known geographic and elevation ranges. Special-status species potentially present within the project site were identified through a literature search of the following databases conducted on October 21, 2022: U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) (USFWS 2022), California Department of Fish and Wildlife's California Natural Diversity Database (CDFW 2022), and the California Native Plant Society's Inventory of Rare and Endangered Plants of California (CNPS 2022). Searches of the above-referenced databases were completed for Lodi North and the following eight surrounding U.S. Geological Survey 7.5-minute quadrangles: Bruceville, Galt, Clay, Lockeford, Waterloo, Lodi South, Terminous, and Thornton (see Appendix C, Biological Compendium and Potential to Occur Tables).

Vegetation communities present within the project site fall under the following general habitat types: oak woodland, upland mustards, and ornamental plantings. A large portion of the project site is also developed. Outside of the developed areas within the project site, both native and naturalized vegetation communities are present. Additional detail is provided in Section 3.2(C).

For this analysis, special-status plant and wildlife species are defined as those that are (1) listed, proposed for listing, or candidates for listing as threatened or endangered under the federal Endangered Species Act; (2) listed or candidates for listing as threatened or endangered under the California Endangered Species Act; (3) designated as Fully Protected under the California Fish and Game Code; (4) designated as a California Species of Special Concern by California Department of Fish and Wildlife; and/or (5) assigned a California Rare Plant Rank of 1A, 1B, or 2B by the California Native Plant Society.

Results of the California Natural Diversity Database, Inventory for Planning and Consultation (IPaC), and California Native Plant Society searches are discussed further in Section 3.2(C). See also Figure 3.2-1, Soil Types; Figure 3.2-2, Land Cover Types; and Figure 3.2-3, California Natural Diversity Database.

B. 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.

After reviewing the database results, Dudek biologist Paul Keating visited the site on November 8, 2022, to assess current conditions and evaluate the site's potential to support sensitive natural communities and special-status plant and wildlife species. Mr. Keating conducted the field survey from 1:10 p.m. to 2:00 p.m. There was 100% cloud cover with a slight drizzle; visibility was still clear, with an ambient temperature of approximately 59°F and wind in the range of 2 to 5 miles per hour. The visit was conducted on foot to ensure visual coverage of the entire site. ArcGIS Field Maps with an overlay of the site boundary were used to map vegetation communities and record any sensitive biological resources. All plant and wildlife species

observed during the survey were recorded. Wildlife species detected by sight, calls, tracks, scat, or other signs were recorded into an electronic form.

The field survey also served to identify potential jurisdictional aquatic resources that occur within the site. Jurisdictional aquatic resources include wetlands, streams, and creeks, among other aquatic features, that are subject to regulation under the federal Clean Water Act (CWA), California Porter–Cologne Water Quality Act, and/or California Fish and Game Code, discussed further in Section 3.13, Water Resources. No formal wetland delineation was conducted at the site.

No focused or protocol-level surveys for special-status species were performed as part of this assessment. Observations of plant and wildlife species, vegetation communities, and other observations are described further in Section 3.2(C).

C. Include a list of the species and habitat(s) actually observed and those with a potential to occur.

Vegetation Communities and Land Cover Types

Land Cover Types

Three land cover types were documented at the project site and within the 100-foot survey buffer (study area): interior live oak wood land (*Quercus wislizeni* woodland alliance), star thistle fields (*Centaurea solstitalis* semi-natural alliance), and ornamental plantings (Figure 3.2-2). The oak woodland land cover is dominated with interior live oaks with few valley oaks (*Quercus lobata*) and an herbaceous understory. The star thistle fields are dominated by yellow star thistle mixed with non-native annual grasses, such as wild oats (*Avena* spp.) and bromes (*Bromus* spp.). Ornamental plantings include native species, such as valley oaks and deergrass (*Muhlenbergia rigens*). A fourth non-natural, developed land cover type makes up most of the site. The developed land cover is graded and currently used for event parking and a spoils (dirt) storage area.

Plant and Wildlife Species Observed

A total of 10 plant species were recorded within the project site and 50-foot survey buffer during the site survey. Plant species observed include interior live oak, valley oak, deergrass, yellow starthistle, and non-native grasses such as slender oat (*Avena barbata*) and ripgut brome (*Bromus diandrus*). Dudek biologists directly observed (or documented via scat, sign, or call) 10 wildlife species on the project site during the site visit. Observed wildlife primarily included bird species such as California scrub-jay (*Aphelocoma californica*) and northern flicker (*Colaptes auratus*). Other wildlife species directly observed or detected via scat or other sign included domestic dog (*Canis lupus familiaris*). Nesting birds protected by the federal Migratory Bird Treaty Act and the California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513) may be in and around the project site. Refer to Sections 3.2(D) and 3.2(E) for additional discussion regarding the Migratory Bird Treaty Act.

Potentially Occurring Special-Status Plant and Wildlife Species

The site is highly disturbed and does not provide suitable habitat for special-status plant or wildlife species. Additionally, the project site does not occur within any designated Critical Habitat boundaries by the U.S. Fish and Wildlife Service for listed plant or wildlife species.

Swainson's hawks (*Buteo swainsoni*) have potential to nest in trees on adjacent properties within visual and auditory range of the site. Potential nesting habitat is present 50 to 300 feet east of the project boundary along the riparian corridor of Lodi Lake. There are 15 documented occurrences for Swainson's hawk within 5 miles of the site, with the nearest occurrences 1.3 and 1.9 miles south and west of the project site, respectively (Figure 3.2-3) (CDFW 2022). No Swainson's hawks or their nests were observed during the site survey.

Although the site is highly developed, other nesting and migratory birds protected by the federal Migratory Bird Treaty Act and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513) use human-made structures and areas. Thus, there is low potential for common bird species, such as killdeer (*Charadrius vociferus*), to be present if work is conducted during the nesting bird season (generally February through August). Refer to Sections 3.2(D) and 3.2(E) for additional discussion regarding the Migratory Bird Treaty Act.

D. A discussion of all impacts (direct, indirect, and cumulative) to biological resources from project site preparation, construction activities, plant operation, maintenance, closure, and decommissioning.

Tree removal, increased activity, noise, and vibration associated with construction of the proposed project has the potential to impact nesting birds protected by the federal Migratory Bird Treaty Act and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513) should they be nesting in or within visual and auditory range of project activities. With implementation of the measures described in Section 3.2(E), potential impacts would be avoided.

E. A discussion of all feasible mitigation measures and an evaluation of their anticipated efficacy in reducing the level of impacts.

Nesting Birds. To avoid potential direct and indirect impacts to nesting birds, activities will be conducted outside of the nesting season (September through February). If not feasible and construction occurs during the nesting season (February through August), the following measures will be implemented to avoid or minimize impacts to nesting birds:

- A qualified biologist will conduct a pre-construction survey for nesting birds no more than 2 days prior to ground-disturbing activities and tree removal during the nesting season (February through August). The survey will cover the limits of construction and suitable nesting habitat within 500 feet of the project site for raptors and 100 feet for other nesting birds, as feasible and accessible.
- If any active nests are observed during surveys, a qualified biologist will establish a suitable avoidance buffer from the active nest. The buffer distance will range from 50 to 500 feet and be determined based on factors such as the species of bird, topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule. Limits of construction to avoid active nests will be established in the field with flagging, fencing, or other appropriate barriers, and will be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist. Removal of any tree with an active nest will be delayed until the nests are no longer active, as determined by the qualified biologist.
- If project activities are delayed, additional nest surveys will be conducted such that no more than 7 days elapse between the prior survey and vegetation removal activities.
- If an active nest is identified in or adjacent to the construction limits after construction has started, work in the vicinity of the nest will be halted until the qualified biologist can provide appropriate

avoidance and minimization measures to ensure that the nest is not disturbed by construction. Appropriate measures may include a no-disturbance buffer until the birds have fledged and/or full-time monitoring by a qualified biologist during construction activities conducted near the nest.

F. A discussion of compliance and monitoring programs to ensure the effectiveness of impact avoidance and mitigation measures incorporated into the project.

Based on the existing conditions and developed nature of the project site, no potential for impacts to sensitive vegetation communities or special-status plant species are anticipated. Implementation of the recommended avoidance measures provided in Section 3.2(E) would ensure no impacts to special-status wildlife species occur as a result of construction activities.

3.3 Cultural Resources and Tribal Cultural Resources

A cultural resources memorandum was prepared for the project and is provided as Appendix D. The following section summarizes Appendix D.

Cultural resources and tribal cultural resources together comprise objects, buildings, structures, sites, features, areas, places, records, sacred places, cultural landscapes, or manuscripts.

A. Locate and provide all relevant existing data: Undertake and submit the results of a records search to identify cultural resources and tribal cultural resources at the appropriate information center(s) of the California Historical Resources Information System (CHRIS). Define the project Area of Potential Effect (APE) (including depth). The records search shall cover the project site and a 1-mile buffer around the project site and 0.25 mile on each side of any linear facilities. Identify any cultural resources or tribal cultural resources listed pursuant to ordinance by a city or county or recognized by any local historical or archaeological society or museum.

Provide copies of California Department of Parks and Recreation (DPR) 523 forms for all cultural resources and tribal cultural resources identified in the records search.

On October 14, 2022, a California Historical Resources Information System records search was completed on behalf of Dudek by staff at the Central California Information Center. The records search request included the project footprint with a 1-mile radius buffer. Two previously recorded resources are mapped as intersecting the project site but outside the area of direct project disturbance: a prehistoric habitation and burial site that overlaps a historic-era cemetery (P-39-000172), and the historic-era town of Woodbridge (P-39-000528). An additional 19 resources have been previously recorded within the 1-mile buffer.

The prehistoric resource overlaps the northern edge of the project site. This resource, the Woodbridge Cemetery Site or Schenck-Dawson 36 (P-39-000172), was recorded as a large midden site with prehistoric burials overlapping a historic-era Euro-American cemetery, the Woodbridge Cemetery. Although the resource was reported as destroyed in 1929, several flaked stone artifacts and debitage, as well as a possible milling stone and baked clay, were identified during a site survey in 1977. This resource does not overlap the project footprint or installation area, which represents the area of direct impacts.

The historic built-environment resource overlapping the project site, the "Town of Woodbridge" (P-39-000528), is a California State Historical Landmark originally described in 1939. As such, the record and boundary for the site include general information only, and is broadly inclusive of the entire town, with no

research-based justification for the boundary. The landmark has been coded "7L," which indicates that it is an older landmark and would not meet the threshold for listing in the California Register of Historical Resources. Additional research indicates that there are buildings and structures described in this record that are potentially individually eligible; however, none of them overlap, are adjacent to, or are within visual distance of the project site. Another resource, Lodi Lake Park (P-39-005402), was recorded adjacent to the project site; however, no Building/Structure/Object form was attached to the site record, and no evaluation was attempted by the recorders.

B. Conduct and provide result of pedestrian archaeological and built environment surveys, as applicable, inclusive of the project site and project linear facility routes.

An intensive pedestrian survey of all accessible portions of the project site was conducted on November 11, 2022, by Dudek archaeologist Walter Tovar-Saldana. The existing surface water treatment facility was not accessible, but all undeveloped portions of the project site were surveyed. During the survey, exposed soils were inspected for prehistoric artifacts, evidence of buried deposits, soil discoloration that might indicate the presence of midden-like soils, and/or possible prehistoric or historic-era features and historic-era artifacts. Ground disturbances, including subsurface soils exposed by burrowing animals, were also visually inspected for cultural materials.

During the survey, surface visibility was good (50% to 100%), with some areas obscured by vegetation and leaf litter. Exposed soils consisted of dark brown, clay loam and were previously disturbed. No resources were identified within the project site, including in areas associated with the previously recorded prehistoric site (P-39-000172).

C. (1) a copy of the applicant's request to the Native American Heritage Commission (NAHC) for information on Native American sacred sites and lists of California Native American tribes interested in the project vicinity, and copies of any correspondence received from the NAHC. (2) A copy of all correspondence sent to Native American individuals and groups listed by the NAHC and copies of all responses. Notification to Native Americans shall include a project description and map. (3) A written summary of any oral responses.

DWR is committed to coordination with all traditionally culturally affiliated tribes, consistent with its Tribal Engagement Policy and the California Natural Resources Agency's Tribal Consultation Policy. On October 26, 2022, a request was sent to the Native American Heritage Commission for a search of its Sacred Lands File and an updated contact list of traditionally culturally affiliated Native American representatives associated with the area. Results were received on December 9, 2022, indicating that a search of the Native American Heritage Commission's Sacred Lands File were negative in the project vicinity. Tribal engagement letters were mailed to tribal groups traditionally and culturally affiliated with the project site on December 16, 2022.

D. Summarize mitigation and management recommendations:

Although resources were not identified during the pedestrian survey for the project site, and the proposed project footprint (area of direct disturbance) is outside of the mapped resource boundaries, there is the possibility for undisturbed buried deposits to be present in the area. Given the high archaeological sensitivity of the project site, archaeological monitoring of trenching and other ground disturbance would be implemented during construction. An archaeological monitoring and discovery plan would be developed with DWR under the oversight of a qualified archaeological principal investigator. Prior to the initiation of

ground-disturbing work, construction crews would be made aware of the potential to encounter cultural resources and the requirement for cultural monitors to be present during these activities. The requirement for a Native American monitor will be determined by the results of consultation and tribal engagement between DWR and traditionally culturally affiliated tribes.

In the event that unanticipated cultural resources are encountered during construction activities, all construction work will immediately stop until DWR staff is notified and a qualified archaeologist can evaluate the sensitivity of the find and determine whether or not additional study is warranted. The level of sensitivity of the find will be assessed, and if warranted, additional efforts, such as preparation of an archaeological treatment plan, testing, and/or data recovery, may be recommended prior to allowing construction to proceed in this area. The potential for avoidance and/or preservation will be the primary consideration. Should human remains be uncovered, all work must stop immediately, and the county coroner must be contacted pursuant to California Health and Human Safety Code Section 7050.5(b). The requirement for Native American monitoring to occur will be determined by DWR based on the results of tribal engagement.

In addition to archaeological monitoring, visually screening of the project is recommended along its eastern boundary using vegetation and creative plantings so as not to introduce modern features in view of the potential adjacent historic property, Lodi Lake Park (P-39-005402).

3.4 Hazardous Materials

A. A summary of hazardous materials sites records searches and applicable hazardous materials site surveys. Include a description of areas of concern or sites within the project boundary or that could be reasonably affected by project implementation.

A hazardous materials assessment was completed to determine if there are any potential environmental concerns on the project site related to hazardous materials and/or waste. The hazardous materials assessment consisted of a review and summary of regulatory agency records, historical aerial photographs, historical topographic maps, historical city directories, and historical fire insurance maps; interviews with site representatives; and a site reconnaissance. The full hazardous materials assessment is provided as Appendix E. A summary of site features identified during research and site reconnaissance is shown in Figure 3.4-1, Project Site Features. No potential hazardous materials impacts were identified.

3.5 Land Use

A. List current assessor's parcel numbers and owners' names and addresses for all parcels within 1000 feet of the site and related facilities. Provide the direct mailing addresses for the owners and occupants of properties contiguous to the proposed site and related facilities as shown on the latest equalized assessment roll. Send notification letters to property owners and occupants within 1000 feet of the site and related facilities.

The project site is on a parcel of land owned by the City of Lodi. Assessor's Parcel Number (APN) 01564008 is 6.79 acres and contains open space and a paved trail along the northern border (City of Lodi 2022a). Associated work, such as connections to existing infrastructure, may occur on adjacent parcels south of the project site. APN 01564007 is 5.94 acres and contains the City of Lodi SWTF and North Mills Avenue (access to the project site). APN 01564005 is 1.81 acres and contains the Lodi Irrigation District substation.

Contiguous parcel APNs, owners, and direct mailing addresses are included in Appendix F. Notification letters were mailed to these addresses on December 20, 2022, and are also included in Appendix F.

B. A description of existing land uses, general plan land use designations, and current zoning districts (including any overlay districts) at the site and surrounding land uses. Include: 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.

The proposed generator facility would be installed on APN 01564008 in a northwest/southeast orientation in the open space area adjacently northeast of the water treatment facility and west of Lodi Lake. The parcel containing the open space has a land use designation of Open Space (OS). The parcels containing the SWTF and the substation are zoned as Public and Community Facilities Zoning District (PF) and have a land use designation of Public/Quasi-Public (PQP) (City of Lodi 2022b). Refer to Figure 3.5-1, Existing General Plan Land Use Designations, and Figure 3.5-2, Existing Zoning, for land use designations and zoning of the site and surroundings.

Adjacent land uses surrounding the project site contain public land, residential, utility, and recreational open space uses. Adjacently north is the Woodbridge Cemetery and a mobile home community. Adjacently northeast and east is the Mokelumne River and Lodi Lake, including areas for recreation facilities along the bank. Adjacently south of the project site is a railroad track, a substation, West Turner Road, and warehouse facilities. Adjacently west is a railroad track, vegetated land previously used for the cultivation of trees/timber, a cell tower, several single-family homes, Lower Sacramento Road, and residential neighborhoods. Refer to Figure 3.5-3, Existing Surrounding Land Uses, showing these surrounding existing land uses.

C. An explanation 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 proposed project would involve installation of a power generation system, consistent with the adjacent public utility uses to the south and southwest (water treatment plant and substation). Due to the adjacent public utility facilities, the proposed project would be an extension of similar land uses in the project area. The proposed project would not conflict with other adjacent land uses, including recreational, open space, and residential uses.

Applicable long-range land use planning documents include the City of Lodi General Plan and City of Lodi Municipal Code. The General Plan identifies the project site as existing open space (but the parcels containing the Lodi SWTF and Lodi Irrigation District substation are also identified as existing open space). The General Plan does not propose specific future uses for the project site (City of Lodi 2010).

The City of Lodi Municipal Code identifies allowable uses for Public and Open Space Districts. The zoning district symbol for these districts is Public and Community Facility (PF), and utility land uses are allowable in these districts (Section 17.26.030). The Municipal Code also states that standards for development within the Public and Community Facility (PF) zoning district would be determined by the City of Lodi through the project review process. The proposed project does not conflict with allowable uses as established by the Municipal Code.

The City of Lodi website lists trails and pathways in Lodi (City of Lodi 2022c). It identifies the paved trail that runs along the northern border of the project parcel and adjacently west of the project parcel as the Lodi Lake West Trail, and depicts the trail approximately 150 feet from the project's area of disturbance. As such, the proposed project would not conflict with the use of the existing trail.

D. A map and written description of agricultural land uses found within all areas affected by the proposed project. The description shall include:

- *Land classifications as shown on the Farmland Mapping and Monitoring Program's Important Farmland maps; and*
- *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).*
- *Adverse 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.*

As shown in Figure 3.5-4, Existing Farmland, Mapping, and Monitoring Program Designations, the project site is mapped as Urban and Built Up Land. The SWTF and the Lodi Irrigation District substation are also designated as Urban and Built Up Land. The area east and northeast of the project site, associated with Lodi Lake and recreation areas, is designated as Nonagricultural or Natural Vegetation. Areas to the northwest, west, and south are designated as Urban and Built Up Land. There are no lands defined by the California Department of Conservation as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland on the project site or in the vicinity. There are no identified Agricultural Land Conservation contracts on the project site or in the vicinity. Therefore, the project would not adversely affect agricultural land.

3.6 Noise

A. On a map, identify noise sensitive land uses (i.e. 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.

Noise-sensitive land uses in the project vicinity consist of a single-family residential neighborhood along the west and east sides of Lower Sacramento Road, adjacent to the west side of the project site, and a single-family residential neighborhood along the north side of Holly Drive, southeast of the project site, across Turner Road. Refer to Figure 3.6-1, Noise-Sensitive Receivers and Ambient Sound Level Measurement Locations, which illustrates the locations of the closest residences to the project site, as well as the locations of the 25-hour and short-term (sub-hour) sound pressure level measurements conducted to characterize the ambient noise levels in the project vicinity. Long-term (LT) measurement location LT1 was on the western project site boundary, east of residences along Lower Sacramento Road. Short-term (ST) location ST1 was east of the northern residence on the eastern side of Lower Sacramento Road (identified as sensitive receiver A). Short-term measurement location ST2 was adjacent to a covered picnic table along Lodi Lake, adjacent to the southeastern extension of the project site. ST3 was along the north side of Turner Road, east of the project site and south of the rental boating building. ST4 was on Holly

Avenue, adjacent to the closest residence to the southeast of the project site (identified as sensitive receiver B). Finally, ST5 was adjacent to a residence on the west side of Lower Sacramento Road, west of the project site. The sound pressure level measurements were completed using SoftdB Piccolo II sound level meters, which are classified as an ANSI Type 2 meter (general purpose sound level meter suitable for all environmental noise surveys). The sound level meters were calibrated before conducting the measurements with a Reed Instruments R8090 calibrator. Appendix G contains the field noise measurement data sheets generated for the project, which include photographs and measured levels at each measurement location.

B. A description of the existing ambient noise levels at those sites identified above. The results of the noise level measurements shall be reported as hourly averages in L_{eq} (equivalent sound or noise level), L_{dn} (day-night sound or noise level) or CNEL (Community Noise Equivalent Level) in units of dB(A).

Table 2 and Table 3 provide a summary of the ambient noise level survey results for the project vicinity. LT1 was in a location without direct exposure to roadway traffic noise, and the short-term measurement locations generally had varying degrees of direct exposure to a nearby roadway. As shown in Table 2, daytime (7 a.m. to 7 p.m.) ambient noise levels are generally in the 47–51 A-weighted decibel (dBA) equivalent continuous sound level (L_{eq}) range; evening noise levels (7 p.m. to 10 p.m.) are in the 48–50 L_{eq} range, and nighttime noise levels (10 p.m. to 7 a.m.) are in the 39–53 dBA L_{eq} range. These fluctuations in the levels between the periods of the day, evening, and night suggest that although LT1 was not directly exposed to roadway traffic noise sources, traffic noise still appears to have an influence on the ambient noise level patterns in the vicinity.

Table 2. Long-Term Measurement Results (LT1); 25-Hour Monitoring Period

Hour of Day	Energy-Averaged Noise Level ($L_{eq\ 1\text{-}hour}$) dBA	Statistical Noise Level (L_{10}) dBA	Statistical Noise Level (L_{50}) dBA	Statistical Noise Level (L_{90}) dBA
12:00 PM	49	50.1	46.8	44.2
1:00 PM	47	49.3	46.4	44.2
2:00 PM	52	50.8	48.2	46.0
3:00 PM	50	51.4	48.4	46.1
4:00 PM	49	51.2	48.9	46.6
5:00 PM	51	52.1	49.9	47.8
6:00 PM	51	52.3	50.1	47.8
7:00 PM	50	51.8	49.3	46.5
8:00 PM	50	51.6	48.5	45.9
9:00 PM	48	50.2	47.1	44.0
10:00 PM	47	49.6	46.0	41.1
11:00 PM	44	47.6	42.3	38.3
12:00 AM	43	46.2	40.5	36.1
1:00 AM	39	41.9	36.7	34.6
2:00 AM	42	45.8	39.2	35.7
3:00 AM	41	43.6	38.3	35.6
4:00 AM	44	46.8	42.2	37.4
5:00 AM	47	50.3	46.0	41.9
6:00 AM	53	54.0	50.1	47.4
7:00 AM	50	52.0	49.6	47.4
8:00 AM	50	51.1	48.4	46.2

Table 2. Long-Term Measurement Results (LT1); 25-Hour Monitoring Period

Hour of Day	Energy-Averaged Noise Level ($L_{eq\ 1\text{-}hour}$) dBA	Statistical Noise Level (L_{10}) dBA	Statistical Noise Level (L_{50}) dBA	Statistical Noise Level (L_{90}) dBA
9:00 AM	47	48.9	46.1	42.9
10:00 AM	47	48.7	45.6	42.8
11:00 AM	48	48.4	45.6	42.5
12:00 PM	47	48.8	45.7	42.9
Calculated CNEL (dBA)	*54*	*N/A*	*N/A*	*N/A*

dBA = A-weighted decibel; L_{eq} = equivalent continuous sound level; CNEL = Community Noise Equivalent Level; N/A = not applicable

As shown in Table 3, the 1-minute average noise levels during the short-term measurement at ST1 ranged from 48 to 56 dBA L_{eq}, those at ST2 ranged from 56 to 69 dBA L_{eq}, those at ST3 ranged from 67 to 71 dBA L_{eq}, those at ST4 ranged from 53 to 61 dBA L_{eq}, and those at ST5 ranged from 65 to 69 dBA L_{eq}. These short-term levels were higher at locations with direct exposure to roadways carrying a substantial number of vehicles, and lower where the measurement locations were adjacent to less busy roadways or considerably farther from busy roadways.

Table 3. Short-Term Measurements Results Summary; 1-Minute Measurement Interval Periods

Location ST1				
Time	*Energy-Averaged Noise Level (L_{eq}) dBA*	*Statistical Noise Level (L_{10}) dBA*	*Statistical Noise Level (L_{50}) dBA*	*Statistical Noise Level (L_{90}) dBA*
1:24 PM	51	53.4	50.2	45.0
1:25 PM	51	53.4	49.1	46.1
1:26 PM	53	55.8	50.8	46.4
1:27 PM	50	51.8	49.6	45.6
1:28 PM	55	58.2	52.7	43.8
1:29 PM	53	56.5	51.7	46.8
1:30 PM	52	55.5	50.9	42.0
1:31 PM	50	53.0	48.7	46.0
1:32 PM	50	52.0	49.0	44.3
1:33 PM	52	54.1	51.4	47.7
1:34 PM	56	60.3	50.5	45.3
1:35 PM	51	54.4	48.9	42.1
1:36 PM	52	56.7	49.8	46.8
1:37 PM	48	51.7	45.5	42.2
1:38 PM	51	54.2	45.9	45.3
Calculated L_{eq} for ST1 Duration	52	N/A	N/A	N/A
Location ST2				
Time	*Energy-Averaged Noise Level (L_{eq}) dBA*	*Statistical Noise Level (L_{10}) dBA*	*Statistical Noise Level (L_{50}) dBA*	*Statistical Noise Level (L_{90}) dBA*
2:14 PM	60	63.8	58.2	53.8
2:15 PM	59	61.5	57.7	51.4
2:16 PM	60	63.9	58.6	52.7

Table 3. Short-Term Measurements Results Summary; 1-Minute Measurement Interval Periods

Location ST1				
2:17 PM	61	63.8	58.7	54.3
2:18 PM	59	62.1	57.5	53.4
2:19 PM	69	73.9	58.0	49.4
2:20 PM	56	59.1	55.1	46.7
2:21 PM	58	62.6	54.6	50.0
2:22 PM	59	63.4	56.4	52.5
2:23 PM	60	60.8	58.5	56.9
Calculated L_{eq} for ST2 Duration	**62**	N/A	N/A	N/A
Location ST3				
Time	*Energy-Averaged Noise Level (Leq) dBA*	*Statistical Noise Level (L10) dBA*	*Statistical Noise Level (L50) dBA*	*Statistical Noise Level (L90) dBA*
2:27 PM	70	72.9	67.5	63.4
2:28 PM	71	73.4	70.4	66.3
2:29 PM	67	71.4	64.2	59.7
2:30 PM	69	72.0	67.9	60.2
2:31 PM	69	71.5	66.9	61.9
2:32 PM	69	72.4	69.0	61.0
Calculated L_{eq} for ST3 Duration	**69**	N/A	N/A	N/A
Location ST4				
Time	*Energy-Averaged Noise Level (Leq) dBA*	*Statistical Noise Level (L10) dBA*	*Statistical Noise Level (L50) dBA*	*Statistical Noise Level (L90) dBA*
2:40 PM	53	56.4	51.4	47.0
2:41 PM	54	55.5	49.5	42.5
2:42 PM	56	61.8	50.3	46.4
2:43 PM	58	62.7	54.7	44.0
2:44 PM	61	64.8	58.0	46.7
2:45 PM	55	58.4	53.8	49.2
Calculated L_{eq} for ST4 Duration	**57**	N/A	N/A	N/A
Location ST5				
Time	*Energy-Averaged Noise Level (Leq) dBA*	*Statistical Noise Level (L10) dBA*	*Statistical Noise Level (L50) dBA*	*Statistical Noise Level (L90) dBA*
1:45 PM	66	69.4	66.1	57.1
1:46 PM	66	70.4	61.6	54.9
1:47 PM	69	71.8	66.5	62.2
1:48 PM	67	72.0	64.3	49.8
1:49 PM	69	72.8	68.3	62.4
1:50 PM	67	70.0	66.8	62.8
1:51 PM	69	72.9	65.0	58.4
1:52 PM	68	71.2	66.9	57.6

Table 3. Short-Term Measurements Results Summary; 1-Minute Measurement Interval Periods

Location ST1				
1:53 PM	66	70.1	63.0	55.4
1:54 PM	65	69.6	62.1	53.8
Calculated L_{eq} for ST5 Duration	**67**	**N/A**	**N/A**	**N/A**

dBA = A-weighted decibel; L_{eq} = equivalent continuous sound level; N/A = not applicable

C. A description of the major noise sources of the project.

Construction of the project would result in the temporary generation of noise at the project site, with the primary construction noise generation occurring at the project site during trenching and site preparation. Construction would involve the use of heavy equipment and machinery, such as loaders, cranes, temporary generators, scrapers, and other equipment. Construction noise would generate levels of noise that can vary from hour to hour and day to day depending on the equipment in use, the operations being performed, and the distance between the source and receptor.

Operationally, the primary noise sources of the project would be the 123 gas-powered generators. Associated noise-producing mechanical infrastructure would also be installed, including 25 transformers. Each of the generator sets would be identical and have an engine rating of 673 horsepower. Operations of the generators would be installed to provide back-up emergency power in the event the CAISO-controlled grid cannot support periods of peak demand, or to prevent grid failure during emergency periods, such as extreme weather events. When in operation, the generators would operate in grid synchronous mode at 400 kilowatt electric. The installed generators would be capable of delivering emergency power at any time, but annual operations are not expected to exceed 300 hours per year. This would include monthly tests that are included as part of standard operations. Table 4 contains the octave band center frequency power levels for the operational equipment.

Table 4. Modeled Stationary Operational Sound Sources

Equipment Type	Unweighted Sound Power Level in Hertz (Hz)									
	31.5	*63*	*125*	*250*	*500*	*1000*	*2000*	*4000*	*8000*	*Overall*
Generator Unit[1]	84.1	85.5	85.2	86.7	86.3	86.6	90.0	92.8	92.5	98.3
Transformer (3 units)[2]	67.9	73.9	75.9	70.9	70.9	64.9	59.9	54.9	47.9	79.9
Transformer (5 units)[2]	71.1	77.1	79.1	74.1	74.1	68.1	63.1	58.1	51.1	83.1

1 Values are based on CadnaA reference data for a fuel-burning engine with turbocharger and exhaust silencer that yield overall A-weighted sound levels considered sufficiently comparable to supplier proprietary test data.

2 Calculated from the Electric Power Plant Environmental Noise Guide (Teplitzky 2005).

D. An estimate of the project noise levels, during both construction and operation, at noise sensitive land uses (e.g., 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.

Construction

The typical maximum noise levels for various pieces of construction equipment at a distance of 50 feet are presented in Table 5. Note that the equipment noise levels presented in Table 5 are maximum noise levels (L_{max}). Typically, construction equipment operates in alternating cycles of full power and low power, producing average noise levels less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time.

Table 5. Construction Equipment – Typical Maximum Noise Levels

Equipment Type	Typical Equipment (dBA at 50 Feet)
Air Compressor	80
Backhoe	80
Compactor	82
Crane	83
Drill Rig	95
Dozer	85
Generator	82
Grader	85
Loader	80
Scraper	85
Truck	84

Source: FTA 2018
dBA = A-weighted decibels.

Aggregate noise emission from proposed project construction activities, broken down by sequential phase, was predicted at two evaluation distances to the nearest existing noise-sensitive receptor: (1) from the nearest position of the construction site boundary, and (2) from the geographic center of the construction site, which serves as the time-averaged location or geographic acoustical centroid of active construction equipment for the phase under study. Table 6 summarizes these two distances to the apparent closest noise-sensitive receptor for each of the four sequential construction phases. At the site boundary, this analysis assumes that up to only one piece of equipment of each listed type per phase would be involved in the construction activity for a limited portion of the 1-hour period. In other words, at such proximity, the operating equipment cannot "stack" or crowd the vicinity and still operate. For the acoustical centroid case, which intends to be a geographic average position for all equipment during the indicated phase, this analysis assumes that the equipment may be operating up to 1 hour per day.

Table 6. Estimated Distances Between Construction Activities and the Nearest Noise Sensitive Receptors

Construction Phase (and Equipment Types Involved)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Distance from Nearest Noise-Sensitive Receptor to Acoustical Centroid of Site (Feet)
Site preparation (graders, scrapers, tractors/loaders/backhoes)	290	450
Grading (graders, rubber-tired dozers, tractors/loaders/backhoes)	290	450
Trenching (equipment >5 horsepower [hp], flatbed truck)	290	450
Civil Construction/generator installation (cranes, forklifts, generator sets, tractors/loaders/backhoes, welders)	290	450
Energization (equipment >5 hp, flatbed truck)	290	450

Construction noise in a well-defined area typically attenuates at approximately 6 decibels (dB) per doubling of distance. Project construction would take place approximately 290 feet from the nearest existing noise-sensitive uses (residence east of the project site). The results in Table 7 display the predicted noise levels for each construction phase with respect to the distance from the nearest noise-sensitive receptor to the construction site boundary, and the distance to the acoustical centroid of the site. Appendix G contains the construction noise modeling worksheets used to predict construction noise for the project.

Table 7. Predicted Construction Noise Levels per Activity Phase

Construction Phase (and Equipment Types Involved)	1-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	1-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Acoustical Centroid of Site (dBA)
Site preparation (graders, scrapers, tractors/loaders/backhoes)	61.1	60.3
Grading (graders, rubber tired dozers, tractors/loaders/backhoes)	61.1	61.1
Trenching (equipment >5 horsepower [hp], flat bed truck)	60.6	57.1
Civil construction/generator installation (cranes, forklifts, generator sets, tractors/loaders/backhoes, welders)	57.3	58.8
Energization (equipment >5 hp, flatbed truck)	62.1	57.9

L_{eq} = equivalent noise level; dBA = A-weighted decibels.

Although nearby off-site residences would be exposed to elevated construction noise levels, the increased noise levels would typically be short term. Noise levels associated with construction are predicted to be up to 11 dB higher than ambient noise levels measured at LT1 (as shown in Table 2). It is also anticipated that construction activities associated with the proposed project would take place primarily within the allowable hours per the County of San Joaquin. Therefore, construction noise is not anticipated to adversely affect the nearest sensitive receptors.

Operation

Long-term operational noise associated with the project would include noise from the gas-powered generators and transformers associated with the operation of the project.

Sound Propagation Prediction

The aggregate noise emission from these outdoor-exposed sound sources has been predicted with the Datakustik CadnaA sound propagation program. CadnaA is a commercially available software program for the calculation, presentation, assessment, and prediction of environmental noise based on algorithms and reference data per International Organization of Standardization (ISO) Standard 9613-2, Attenuation of Sound During Propagation Outdoors, Part 2: General Method of Calculation (ISO 1996). The CadnaA computer software allows sources of sound emission to be positioned in a simulated three-dimensional space atop rendered "blocks" of project building masses having heights and footprints consistent with project architectural plans and elevations. In addition to the above-mentioned sound source inputs and building-block structures that define the three-dimensional sound propagation model space, the following assumptions and parameters are included in this CadnaA-supported stationary noise source assessment:

- Ground effect acoustical absorption coefficient equal to 0.5, which intends to represent an average or blending of ground covers that are characterized largely by hard reflective pavements and existing building surfaces across the project site and the surroundings.
- Reflection order of 1, which allows for a single reflection of sound paths on encountered structural surfaces such as the modeled building masses.
- Calm meteorological conditions (i.e., no wind) with 68°F and 50% relative humidity.
- For purposes of impact assessment as evaluated herein, all modeled equipment is operating concurrently and continuously for a minimum period of 1 hour.

Table 8 presents the predicted aggregate noise level exposures from these systems at each of four nearby off-site receptors (existing single-family homes and positions representing ST1 and LT1). Predicted levels shown in Table 8 range from 42 to 48 dBA hourly L_{eq}. Figure 3.6-2, Aggregate Project Operational Noise Emissions, shows the location of the studied noise-sensitive receptors and noise contours.

Table 8. Stationary Operations Noise Modeling Results

Studied Noise-Sensitive Receptor	Location	Predicted Project Attributed Noise Exposure Level (dBA L_{eq})
R1/ST1	Northwest of the project site; representative of ST1	47.7
R2/LT1	Northwest of the project site; representative of LT1	48.3
R3 (1st Floor)	Single-family residence at 1212 N. Lower Sacramento Road	42.5
R3 (2nd Floor)		48.2
R4	Single-family residence at 1222 N. Lower Sacramento Road	42.1

Source: Appendix G.
Leq = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibels.

Stationary operations at R2/LT1 are predicted to exceed the increase-over-ambient threshold of 5 dB for potential impact during the early morning hours (specifically the 1:00 a.m. hour) when compared to the long-term data found in Table 2. Because such potential nighttime operation of the generators during an actual emergency condition would be exempt from normally applicable local noise regulations (consistent with Lodi Municipal Code Sections 9.24.010.E and 9.24.050.D), this increase-over-ambient may still be greater than 5 dB but would be considered in compliance with the local noise ordinance. Regular testing (e.g., once a month or as proposed) would be short term and occur during the daytime without adversely affecting nearby sensitive receptors.

Corona Noise

The effects of potential corona noise (i.e., a crackling or hissing sound commonly associated with transmission lines) were analyzed using an industry-accepted conductor corona audible noise estimation technique based on Bonneville Power Administration (BPA) Technical Report ERJ-77-168. The anticipated audible noise from a three-phase alternating-current conductor connecting the project transformers to the nearest existing substation would be 32.5 dBA L50 at a distance of 25 feet under "foul" (rainy, wet, and/or dusty conductor surface) conditions. Under "fair" conditions, the predicted noise would be 25 dB less. At these magnitudes, and correcting for distance at an attenuation rate of approximately 3 dB per doubling of distance (i.e., a line source of noise), the new conductor would make a negligible acoustic contribution to the aggregate noise from on-site generators and transformers. Consequently, the new conductor is expected to make a negligible change to the pre-existing outdoor ambient sound environment at the relevant boundaries of transmission lines or the nearest receiving off-site noise-sensitive properties.

E. An estimate of the project noise levels within the project site boundary during both construction and operation.

The existing facility is an industrial land use that is not considered noise sensitive. Workers during construction and operation are anticipated to use hearing protection as required by the Occupational Safety and Health Administration (OSHA). During construction, noise levels from the various pieces of heavy equipment would be similar to those listed in Table 5, but would likely be less depending on use and distance. Figure 3.6-2 shows predicted operational noise levels within the project site, ranging from approximately 70 dBA to exceeding 87 dBA.

3.7 Paleontological Resources

A. Identification of the Geomorphic Province, as defined by the California Department of Conservation, California Geologic Survey Note 36, and a brief summary of the geologic setting, formations, and stratigraphy of the project area. The size of the paleontological study area may vary depending on the depositional history of the region.

The City of Lodi, in San Joaquin County, is within the north central San Joaquin Valley, in the Great Valley Geomorphic Province (Great Valley) (CGS 2002; Harden 2004). The Great Valley (also known as the Central Valley) is an extensive, relatively flat valley composed of sedimentary deposits that are thousands of feet thick, adjacent to and west of the Sierra Nevada and east of the Coast Ranges Geomorphic Province (Harden 2004).

A geotechnical report prepared in 2010 described the sediments for this site as being previously disturbed to a depth of 2 to 3 feet. Sediments down to 10 feet were relatively loose, possibly due to reworking, and more compacted at depth. They consist of undifferentiated sediments to a depth of approximately 50 feet (Youngdahl Consulting Group 2010).

The project site is mapped as being underlain by the Pleistocene (approximately 29,500 years old) Modesto Formation (map unit Qm2), according to published, surficial geological mapping at a 1:62,500 scale (Wagner et al. 1981; Marchand and Atwater 1979). Refer to Figure 3.7-1, Underlying Geologic Formations.

B. A discussion of the sensitivity of the project area and the presence and significance of any known paleontologic localities or other paleontologic resources within or adjacent to the project.

The Modesto Formation has a high paleontological resource sensitivity. Paleontological resources have been recovered from correlative Pleistocene sedimentary deposits elsewhere in San Joaquin County (Confidential Appendix H). However, disturbed sedimentary deposits have a low paleontological resource sensitivity.

C. A summary of all local museums, literature searches and field surveys used to provide information about paleontologic resources in the project area

The Pleistocene Modesto Formation, characteristically tan and light gray in color, has been known to contain Ice Age mammals throughout San Joaquin County, as confirmed by a search of the University of California Museum of Paleontology's online database. According to the University of California Museum of Paleontology, the closest fossil locality to the project site is University of California Museum of Paleontology Vertebrate Paleontology locality 4822, which produced a fossil specimen of horse approximately 10 miles south of the project site (Confidential Appendix H).

D. A discussion of any educational programs proposed to enhance employees' awareness of potential impacts to paleontological resources, measures proposed for mitigation of impacts to known paleontologic resources, and a set of contingency measures for mitigation of potential impacts to currently unknown paleontologic resources.

No paleontological resources were identified within the project site as a result of the institutional records searches or desktop geological review (Confidential Appendix H). However, intact paleontological resources may be present below disturbed and/or reworked sedimentary deposits. Given the proximity of past fossil discoveries in the surrounding area and the underlying Pleistocene deposits, the project site ranges from low paleontological resource sensitivity at the surface to high paleontological resource sensitivity at depth.

The project site is potentially underlain by previously undisturbed Pleistocene age Modesto Formation, approximately 29,500 years old, that would require monitoring below a depth of 10 feet. In the event that intact paleontological resources are on the project site, ground-disturbing activities associated with construction of the project, such as grading during site preparation and trenching, have the potential to destroy unique paleontological resources or sites.

The following measure for paleontological resources will be implemented:

> Prior to commencement of any grading activity on site, the California Department of Water Resources will retain a qualified paleontologist meeting the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The paleontologist will prepare a Paleontological Resources Impact

Mitigation Program for the project. The Paleontological Resources Impact Mitigation Program will be consistent with the guidelines of the SVP (2010) and include the following elements: project description, preconstruction worker environmental awareness training, frequency of monitoring, salvage protocols, reporting, and collections management. The qualified paleontologist or a qualified monitor meeting the SVP (2010) guidelines will be on site during all rough grading and other significant ground-disturbing activities below a depth of 10 feet below the existing ground surface in previously undisturbed Pleistocene-age deposits and/or Modesto Formation. If excavations below 10 feet are not impacting previously undisturbed Pleistocene-age deposits and/or Modesto Formation, as determined by the qualified paleontologist, spot-check monitoring will ensue. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of the paleontological resources. The area of discovery will be roped off with a 50-foot-radius buffer to document and collect the fossils. Once documentation and collection of the find is completed, the monitor will remove the rope and allow grading to recommence in the area of the find. No monitoring is required during excavations that the paleontologist determines are within artificial fill (i.e., previously disturbed sedimentary deposits).

3.8 Population and Housing

A. Provide an estimate of the potential temporary and permanent population increase caused directly and indirectly by the project. Include applicable impacts to school districts, hospital or ambulance districts, fire districts, parks and recreational districts, etc.

Construction of the project would result in a temporary direct increase in construction jobs in the area. However, given the nature of project construction and schedule anticipated, the demand for construction employment would likely be met within the existing and future labor market in the City of Lodi and surrounding areas. If construction workers live outside of the immediate local area, these workers would likely commute during the temporary construction period and would not need temporary or permanent housing. During construction, there may be a temporary increase in demand for emergency services at the site. However, short-term construction would not impact schools, parks and recreational facilities, or other similar services because no temporary or permanent population increase in the area would occur.

Operationally, the project would not introduce land uses or activities that typically result in direct population growth, such as new homes or large commercial/business centers. The project would not change the use of the existing Lodi SWTF. Upon completion of construction, the project would be operated remotely and would require periodic visits for operational maintenance throughout the year from personnel already in the area. As a source of back-up emergency power, the project would not indirectly contribute to an increase in population in the area. Rather, the project is intended to serve existing areas by improving local electric grid reliability and prevent power shutoffs or other interruptions of power provision during emergency events by siting additional energy generation at an existing energy infrastructure site. Therefore, the project would not result in a direct or indirect permanent population increase, and thus, would not permanently impact school districts, hospital or ambulance districts, fire districts, parks and recreational districts, or other similar services.

3.9 Public Health

A. An assessment of the potential risk to human health from the project's hazardous air emissions using the Air Resources Board Hotspots Analysis and Reporting Program (HARP) (Health and Safety Code §§ 44360-44366) or its successor and Approved Risk Assessment Health Values. These values shall include the cancer potency values and noncancer reference exposure levels approved by the Office of Environmental Health Hazard Assessment (OEHHA Guidelines, Cal-EPA 2005).

Construction

The primary pollutant of concern related to exposure of sensitive receptors is diesel particulate matter generated by construction-related vehicles and equipment. The actual risk of adverse air quality effects depends on a person's current health status, the pollutant type and concentration, and the length of exposure to the polluted air. Health risk is a function of the concentration of contaminants in the environment and the duration of exposure to those contaminants. Health effects from toxic air contaminants are often described in terms of individual cancer risk, which is based on a 30-year lifetime exposure to toxic air contaminants (OEHHA 2015). Construction activities were modeled based on an approximately 5-month construction duration, which would be approximately 1% of the total exposure period used for typical health risk calculations. Additionally, concentrations of mobile-source diesel particulate matter emissions are typically reduced by 70% at a distance of approximately 500 feet (CARB 2005). The nearest sensitive receptor (residence) is approximately 479 feet northwest of the project site. Due to the temporary nature of construction activities and the dispersive properties of diesel particulate matter, the nearest residential receptors would not be impacted regarding construction health risks.

Operations

The project would be subject to SJVAPCD permitting requirements. Pursuant to SJVAPCD Risk Management Policy APR-1905, all projects resulting in increases in hourly, daily, or annual hazardous air pollutants will undergo public health risk evaluation as part of the permit review process prior to any final decision on Authority to Construct or Permits to Operate (SJVAPCD 2015b).

APR-1905 requires implementation of toxic best available control technology (T-BACT) when a new or modified emissions unit results in a greater than de minimus increase in cancer risk (greater than 1 in 1 million) or a greater than de minimus increase in noncancer risk (increase in hazard index of 1). Additionally, the SJVAPCD will not permit a project if the emissions unit results in an increase in the Maximum Excess Cancer Risk of 20 in 1 million or greater.

During the permitting process, the SJVAPCD will conduct a health risk assessment for the project. Compliance with the permitting process will ensure that operational emissions do not exceed applicable thresholds for health risk.

B. A map showing sensitive receptors within the area.

See Figure 3.6-1 and Figure 3.9-1, Surrounding Sensitive Receptors, for locations of sensitive receptors in proximity to the project site.

3.10 Soils and Geology

A. A map and written description of soil types and all agricultural land uses that will be affected by the proposed project.

The project site is underlain primarily by Tokay-Urban land complex, with lesser amounts of Egbert silty clay loam in the northeast corner of the site (see Figure 3.2-1, Soil Types). The Tokay soil series consists of very deep, well-drained soils formed in alluvium, derived primarily from granitic rock sources. Tokay soils are found on low fan terraces on 0% to 2% slopes. These soils consist of brown to dark grayish brown, sandy loam, to a depth of 60 inches. These soils, which are slightly hard in the upper 4 inches, hard from 4 to 19 inches, and very hard from 19 to 60 inches, are well-drained, have slow runoff, and have moderately rapid permeability (National Cooperative Soil Survey 2003). The Urban classification indicates the soils are in a built-up urban environment.

The Egbert soil series consists of very deep, poorly drained soils formed in alluvium from mixed sources. Egbert soils are found in basins of river deltas and have slopes of 0% to 5%. These soils consist of very dark gray, moist, very hard, silty clay loam to a depth of 60 inches. These soils, which are found on nearly level to gently sloping floodplains, are poorly drained, have very slow to slow runoff, and have slow permeability. Levees and drains are required to control both surface and subsurface water in the presence of these soils (National Cooperative Soil Survey 2016).

Tokay series soils are used for irrigated row, field, tree, and vine crops, as well as urban development (National Cooperative Soil Survey 2003); Egbert soils are used for irrigated cropland (National Cooperative Soil Survey 2016). However, as indicated in Figure 3.5-4, the project site is primarily on urban and built up land, with a narrow band of nonagricultural or naturally vegetated land along the northeast boundary. Therefore, the proposed project would not displace existing agricultural land uses. Refer also to Section 3.5, Land Use, for an additional discussion about agricultural land.

B. A summary of the geology, seismicity, and geologic resources of the project site and related facilities.

The project site is within the southern portion of the Sacramento Valley, which constitutes the northern and smaller portion of the Central Valley of California. The Sacramento Valley is underlain by sediments transported from the surrounding mountains by the Sacramento River and its tributaries. The Sacramento Valley occupies the northern part of the Great Valley structural trough, a down-warped basin of deposition filled with approximately 30,000 feet of sedimentary materials that range in age from Cretaceous to Recent (USGS 1961; San Joaquin County 2014).

The project site is between two areas of seismic activity: the San Andreas Fault system to the west, and faults of the eastern Sierras area to the east. No Holocene-active (past 11,700 years) or pre-Holocene/Quaternary (past 1.6 million years) faults are in the vicinity of the project site. The closest Holocene-active fault is the Concord Fault, approximately 40 miles southwest of the site. Regional pre-Holocene/Quaternary faults west of the site include the Midland, Rio Vista, and Davis Faults, approximately 18 miles, 22 miles, and 27 miles from the site, respectively (Figure 3.10-1, Regional Faults). The Foothills Fault system, a wide zone of faulting that is the dominant structural feature of the western Sierra Nevada, is approximately 25 miles northeast of the project site. Although the Foothills Fault system consists

predominantly of pre-Quaternary faults, segments of Quaternary faults are present, including the Bear Mountains Fault Zone, Youngs Creek Fault, Haupt Creek Fault, and Poorman Gulch Fault (CGS 2022).

In general, the earthquake risk in the Sacramento Valley is far less than the San Francisco Bay area to the west. Rather, smaller earthquakes are common in this area. However, the Sacramento area north of Lodi experienced the effects of the magnitude 6.5 Monte Cristo Range earthquake in western Nevada in May 2020, and a magnitude 6.5 earthquake in central Idaho in March 2020. In addition, the project site could be subject to seismically induced ground shaking from an earthquake within the San Andreas Fault system of the San Francisco Bay area to the west. There is a 63% to 77% chance of one or more magnitude 6.7 to 7.0+ earthquakes occurring in the San Francisco Bay area in the next 30 years (California Earthquake Authority 2020; San Joaquin County 2014).

C. ***A map and description of all recognized stratigraphic units, geologic structures, and geomorphic features within two (2) miles of the project site. Include an analysis of the likelihood of ground rupture, seismic shaking, mass wasting and slope stability, liquefaction, subsidence, tsunami runup, and expansion or collapse of soil structures at the facility site.***

Stratigraphy

The project site is underlain by Holocene (past 11,700 years) River deposits and Pleistocene (11,700 to 1.6 million years ago) Victor Formation and related deposits (Figure 3.7-1). The River deposits consist of sand, gravel, silt, and minor amounts of clay along channels; flood plains; and natural levees of major streams. These deposits are highly permeable. The Victor Formation and related deposits consist of lenticular silt, sand, gravel, and clay deposited by streams draining the Sierra Nevada. These sediments are moderately permeable (USGS 1961).

Based on soil borings completed in 2010 for the adjacent Lodi SWTF, on-site soils consist predominantly of medium dense silty sand to a maximum depth of 50 feet. The upper 5 to 10 feet of sediments were relatively loose, with the soils becoming medium dense below a depth of 10 feet. Soils below a depth of 10 feet consisted of interbedded layers of sand, in a medium dense to dense, variably cemented condition. Medium stiff sandy silt was encountered at a depth of 49 feet (Youngdahl Consulting Group 2010).

Seismicity and Seismic Ground Rupture

No Holocene active faults or Alquist-Priolo Earthquake Fault Zones, which mandate completion of a fault investigation for proposed habitable structures or critical infrastructure, traverse the project site (CGS 2022b). The closest Holocene-active fault is the Concord Fault, approximately 40 miles southwest of the site. Therefore, the potential for damage due to fault rupture is considered negligible. In addition, completion of the project would not cause a regional fault to rupture.

As previously discussed, the earthquake risk in the Sacramento Valley is far less than the San Francisco Bay area to the west. Rather, smaller earthquakes are common in this area. However, seismically induced ground shaking can be expected during the life of the project. Proposed improvements would be required to adhere to the seismic design requirements of the most current California Building Code (CBC). Incorporation of the seismic design standards and requirements in accordance with the most current version of the CBC would ensure that the proposed improvements do not result in catastrophic failure during strong seismically induced ground shaking. Although conformance with seismic design criteria does

not constitute a guarantee or assurance that no structural damage would occur in the event of a large earthquake, adherence to seismic design criteria ensures that the potential for catastrophic failure is minimized. In addition, completion of the project would not cause seismic ground shaking to occur.

Liquefaction

Liquefaction occurs when loose, cohesionless, and water-saturated soils (generally coarse-grained sands and silt) are subjected to strong seismic ground motion that exceeds the frictional static forces of the grains within the soil. With such conditions, soils essentially behave more like a fluid than a solid, with a temporary reduction or loss of shear strength between grains. Improvements constructed on these soils may buckle, tilt, or settle when the soils liquefy. Liquefaction more often occurs in earthquake-prone areas underlain by young, sandy alluvium where the groundwater table is less than 50 feet below the ground surface.

Based on soil borings completed for the adjacent Lodi SWTF site in 2007, groundwater was encountered at a depth of 34 feet. However, groundwater was not encountered to a depth of 50 feet in borings drilled in 2010. Based on DWR well data, the average groundwater levels historically fluctuate in the project region from a depth of 24 to 30 feet below ground surface. In addition, based on borings completed for other projects in the area, localized lenses of perched groundwater can occur at varying times of the year (Youngdahl Consulting Group 2010).

Although groundwater has been observed within a depth of 50 feet beneath the site and in the project region, the geotechnical investigation for the adjacent Lodi SWTF concluded that due to the relatively low seismicity of the project area and the cemented and medium dense to dense nature of the on-site sediments, the potential for damage due to liquefaction is considered negligible. As a result, geotechnical mitigation for liquefaction is not typically practiced in the geographic region of the site (Youngdahl Consulting Group 2010). Regardless, project construction would be completed in compliance with provisions of the CBC, which would require completion of a project-specific geotechnical report. In the event that the project-specific geotechnical report concludes that liquefaction is a potential issue, the project would be designed to mitigate any anticipated effects of liquefaction. In addition, completion of the project would not create conditions conducive to liquefaction, and thus cause or exacerbate the potential for liquefaction to occur.

Subsidence

Subsidence is the permanent collapse of the pore space within a soil or rock and downward settling of the earth's surface relative to its surrounding area. Subsidence can result from the extraction of water or oil, the addition of water to the land surface (a condition called "hydrocompaction"), or peat loss. The compaction of subsurface sediment caused by the withdrawal or addition of fluids can cause subsidence. Land subsidence can disrupt surface drainage; reduce aquifer storage; cause earth fissures; damage buildings and structures; and damage wells, roads, and utility infrastructure. Although large areas of the Sacramento–San Joaquin Valley have recorded subsidence due to groundwater pumping and peat loss, there have been no recorded instances of subsidence in the Lodi area (USGS 2022a). Therefore, the potential for damage due to ground subsidence is low.

Expansive Soils

Expansive soils are soils that expand when water is added and shrink when dry. This continuous change in soil volume can cause foundations to move unevenly and crack. Based on soil borings completed for the adjacent Lodi SWTF, on-site soils are non-plastic materials that are considered to be relatively non-expansive. Special design considerations related to expansive soils were not recommended for the SWTF (Youngdahl Consulting Group 2010). Regardless, project construction would be completed in compliance with provisions of the CBC, which would require completion of a site-specific geotechnical report. In the event that expansive soils are encountered during the geotechnical investigation, typical remedial methods include overexcavation of clay-rich expansive soils and replacement with granular sandy soils, or construction with post-tension slabs, thus minimizing the potential for damage due to expansive soils. In addition, completion of the project would not create conditions conducive to soil expansion.

Collapsible Soils

Collapsible or compressible soils typically occur in recently deposited Holocene soils that were deposited in an arid or semi-arid environment. Soils prone to collapse are commonly associated with wind-laid sands, silts, alluvial fan sediments, and mudflow sediments deposited during flash floods. Based on soil borings completed in 2010 for the adjacent Lodi SWTF (Youngdahl Consulting Group 2010), the upper 5 to 10 feet of on-site sediments are relatively loose, with the soils becoming medium dense below a depth of 10 feet. These upper loose sediments could be prone to collapse. The geotechnical report recommended overexcavation of at least the upper 3 feet and recompaction as engineered fill. Similar remedial soil measures would likely be required for the project site. Project construction would be completed in compliance with provisions of the CBC, which would require completion of a site-specific geotechnical report. In the event that collapsible soils are encountered during the geotechnical investigation, typical remedial methods include overexcavation of loose, unconsolidated soils and replacement with compacted, engineered fill, thus minimizing the potential for damage due to collapsible soils. In addition, completion of the project would not create conditions conducive to soil collapse.

Slope Stability

The topography of the project site is relatively flat with an 8- to 10-foot-high levee along the eastern perimeter. The levee slopes are gently sloping and therefore would not likely be prone to failure. Based on the geotechnical report for the adjacent Lodi SWTF (Youngdahl Consulting Group 2010), due to the relatively low seismicity of the area and the cemented and medium dense to dense nature of on-site sediments, potential for damage due to seismically induced slope instability is considered negligible. In addition, project construction would not occur on the levee slopes and would not result in excavations into the slopes. As a result, project construction would not undercut the slopes and cause slope failure.

Work required to connect the generator facility to the substation would include excavating and trenching for foundations and duct banks. There would be approximately 900 feet of trenching for pipe and electric conduit on the project site. Proposed trenches would range from 3 feet wide by 3 feet deep, to 6 feet wide by 6 feet deep. Trenching would be completed in accordance with federal and state OSHA regulations. OSHA requires that all excavations in which employees could potentially be exposed to cave-ins be protected by sloping or benching the sides of the excavation, supporting the sides of the excavation, or placing a shield between the side of the excavation and the work area. With incorporation of proper trenching protocol, slope stability impacts in proposed trenches would be minimized.

Tsunami Runup

The project site is in the Central Valley, not in proximity to the Pacific Ocean. As a result, there is no potential for tsunami runup at the site.

3.11 Traffic and Transportation

A. Discuss the regional transportation setting, identifying the project location and major transportation facilities. Include a reference to the transportation element of any applicable local or regional plan.

Interstate 5, State Route (SR) 99, and SR-12 provide access to Lodi and the project site. SR-99 is approximately 2 miles east of the site and connects Lodi to the Sacramento region to the north and the San Joaquin/Stanislaus County to the south. SR-12 is an east/west highway approximately 2 miles south of the project site. The roadway network in the vicinity of the proposed project consists of Turner Road, Lower Sacramento Road, and Mills Avenue.

Turner Road is an east/west roadway south of the project site. The roadway is classified as a minor arterial in the Lodi General Plan Transportation Element (2010). Near the project site, Turner Road has two travel lanes in each direction. Turner Road provides access to Interstate 5 and SR-99 via freeway interchanges. Per year 2022 data, the average daily traffic volume on Turner Road near its intersection with Lower Sacramento Road is approximately 14,960 vehicles per day (Caltrans 2022). Access to Turner Road from the project site is provided via Mills Avenue. Turner Road is a truck route in Lodi, but trucks over two axles are prohibited along the roadway from Lower Sacramento Road to the SR-99 southbound ramps except for pick-ups and deliveries within city limits.

Lower Sacramento Road is a north/south roadway west of the project site. The segment of Lower Sacramento Road north of Turner Road is designated a minor arterial road in the Lodi General Plan Transportation Element (2010). The roadway generally has one travel lane in each direction, but the roadway segment between Turner Road and Mokelumne Street has a painted median or two-way center left-turn lanes along its stretch. Per year 2022 data, the average daily traffic volume on Lower Sacramento Road north of Turner Road is approximately 9,920 vehicles per day (Caltrans 2022).

Mills Avenue is a north/south roadway that terminates in a cul-de-sac along the eastern boundary of the project site. It is classified as a collector road in the Lodi General Plan Transportation Element (2010). Mills Avenue has one travel lane in each direction. Per year 2022 data, the average daily traffic volume on Mills Avenue south of Turner Road is approximately 5,600 vehicles per day (Caltrans 2022). Mills Avenue would access the project site via the Turner Road/Mills Avenue intersection. The Turner Road/Mills Avenue intersection is signalized and also includes a railroad crossing.

Near the project site is an existing Class I bike path along the western shore of Lodi Lake, an existing Class II bike lane along Mills Avenue south of Turner Road, and an existing Class II bike lane along Lower Sacramento Road north of Turner Road. Existing sidewalk is present along the Turner Road frontage of Lodi Lake Park. Bikeways and roads within Lodi Lake Park are available for pedestrian use. There are paved and unpaved trails in the Lodi Lake Nature Area, which is accessible from Lodi Lake Park.

Transit services in the City of Lodi are operated by Grapeline. There are five weekday and four weekend fixed routes, which start and end at the Lodi Transit Center off Sacramento Street approximately 2.5 miles

southeast of the project site. The transit center allows for connection to San Joaquin Regional Transit District bus lines to Manteca, Lathrop, Tracy, and Stockton, and to South County Transit bus lines to Galt, Elk Grove, and Sacramento. Grapeline Route 1 provides service in the vicinity of the project site along Turner Road, with a bus stop at the entrance to Lodi Lake Park. The route extends between Lodi Transit Station and the Lower Sacramento Road/Kettleman Lane intersection.

Passenger rail service is provided by AMTRAK for the San Joaquin route, which connects Oakland and Sacramento to Bakersfield. The nearest AMTRAK station is also the Lodi Transit Station. The rail freight operations in Lodi are provided by Union Pacific and the Central California Traction Company. The Lodi Airport is a domestic airport approximately 7.3 miles northeast from the project site, along SR-99.

The City of Lodi's General Plan Transportation Element (2010) describes trends in residents' travel patterns to establish a basis for improvements, existing and proposed improvements for each mode and type of transportation, and policies to achieve a multi-modal transportation network. The element includes Guiding Policies and Implementation Policies for the City of Lodi's circulation system, roadway network, pedestrian and bicycle facilities, public transit services, parking, good movement, and transportation demand management.

The 2022 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) covers the entire area of San Joaquin County and includes the cities of Stockton, Tracy, Lodi, Manteca, Lathrop, Ripon, and Escalon, as well as unincorporated communities in San Joaquin County (SJCOG 2022). The 2022 RTP/SCS includes goals and objectives on a federal, state, and regional level that aim to achieve a significant reduction in traffic fatalities and serious injuries on all public roads; maintain the highway infrastructure asset system in a state of good repair; achieve a significant reduction in congestion on the National Highway System; improve the efficiency of the surface transportation system; enhance the performance of the transportation system while protecting and enhancing the natural environment; and improve overall mobility and accessibility.

The proposed project is a temporary energy generation facility that would provide additional power generation capacity to provide adequate power supply throughout California during peak demand (i.e. emergency) events. As shown below, the proposed project would generate temporary construction trips for a short duration and no new operational trips; therefore, it would not result in adverse impact to any transportation facility in its vicinity nor conflict with the adopted standards and policies included in the City of Lodi's Transportation Element or San Joaquin Council of Governments 2022 RTP/SCS.

B. An evaluation of the project's potential impacts related to vehicle miles traveled (VMT).

The passage of Senate Bill 743 required the focus of transportation analysis change from level of service or vehicle delay to vehicle miles traveled (VMT) in California and adoption of VMT as the basis for evaluating transportation impacts.[2] VMT is defined as "the amount and distance of automobile travel attributable to a project." "Automobile" refers to on-road passenger vehicles, specifically cars and light trucks. The

[2] Pursuant to Senate Bill (SB) 743, the focus of transportation impact analysis under CEQA changed from level of service (LOS) or vehicle delay to VMT. The related updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. This new methodology was required to be used statewide beginning July 1, 2020. It should be noted that the guidelines and thresholds apply to land use and transportation projects that are subject to CEQA analysis. The proposed project is not a land use or transportation project, and therefore neither Section 15064.3(b)(1) nor Section 15064.3(b)(2) of the CEQA Guidelines apply. Instead, the proposed project would be categorized under Section 15064.3(b)(3) qualitative analysis. The updated CEQA Guidelines do not establish a significance threshold, however, recommend a threshold of significance for land use development (residential, office, and other land uses) and transportation projects. It should be noted that there is no significance threshold for construction or maintenance projects.

Governor's Office of Planning and Research (OPR) clarified in its Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018) that heavy-duty truck VMT is not required to be included in the estimation of a project's VMT. Other relevant considerations may include the effects of a project on transit and non-motorized traveled. Although a quantitative analysis of VMT is preferred per OPR's guidance, a qualitative analysis may be used if existing models or methods are not available to estimate VMT for the project being considered. Additionally, the construction of a project may be evaluated qualitatively.

The project site is in the City of Lodi. Per the Draft for Review version of VMT Thresholds Study for the County of San Joaquin (July 17, 2020), the Work VMT per employee in the City of Lodi is 20.09, and the unincorporated regional average Work VMT per employee is 19.05. However, the City of Lodi has not yet adopted VMT-specific guidelines; therefore, the following assessment is based on the OPR's Technical Advisory (OPR 2018). The anticipated construction and nominal operations and maintenance traffic generated by the project has been evaluated qualitatively.

The project would involve construction that would generate temporary construction-related traffic over 5 months and nominal operations traffic. As mentioned above, heavy vehicle traffic is not required to be included in the estimation of a project's VMT. Worker and vendor trips would generate temporary and short-term VMT; however, once construction is completed, the construction-related traffic and VMT would cease and return to pre-construction conditions. Additionally, the air quality and greenhouse gas analysis (Appendix B) accounts for the worker and truck trips during the construction period, so a qualitative analysis for transportation purposes is considered adequate.

Project operation would not require personnel to be on site to maintain operations; the generators would be operated remotely. Personnel would visit the site periodically throughout the year for scheduled maintenance and to test-operate the generators once each month; up to 200 operational trips per year are anticipated. Therefore, the proposed project would result in nominal trips related to operations. Hence, operation of the proposed project can be screened out per OPR's guidelines that it would not generate 110 daily trips[3] or more, and project VMT would be considered de minimus.

C. An assessment of the construction and operation impacts of the proposed project on nearby transportation facilities. Also include anticipated project-specific traffic, estimated daily average and peak traffic trips and traffic/truck mix.

During construction, workers and trucks would access the project site from Mills Avenue via its intersection with Turner Road. The workers and trucks would use the parking lot for the Lodi SWTF during construction of the proposed project.

Construction and operation of the proposed project would generate relatively low daily and peak-hour trips. The Institute of Transportation Engineers' Trip Generation Manual does not contain trip rates for construction-related activities (ITE 2021); therefore, trips generated from the peak phase of construction of the project have been estimated using the project's air quality analysis (Appendix B). The estimated trip

[3] This threshold ties directly to the OPR technical advisory and notes that CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area (CEQA Guidelines, Section 15301(e)(2)). Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110–124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

generation is primarily based on the number of construction employees or workers, as well as the quantity of vendor (material, equipment, or water trucks) and haul-related truck estimates. Each worker and truck would generate an average of two daily trips to/from the project site: one inbound and one outbound. All the workers were assumed to commute during the peak hours. Although some workers would likely carpool to the project site, to estimate the most conservative trip generation, it was assumed that each worker would drive separately. The construction work shift would generally occur between 7:00 a.m. and 5:00 p.m., but additional time may be required after 5:00 p.m. It was assumed that vendor and haul truck traffic would be evenly distributed throughout the workday, but it is expected that some restrictions during peak hours due to congestion could apply to truck traffic.

The project's construction traffic was estimated per phase of construction from the air quality analysis (Appendix B). Trip generation for workers and trucks was estimated for the peak phase of construction, which would occur for approximately 70 days. This would be during the trenching and generator installation phase when the maximum number of total worker and truck trips would be required. This peak construction period was established based on applying a passenger car equivalent conversion factor to truck trips. As shown in Table 9, peak construction of the proposed project would generate 72 total daily trips, including 32 AM peak-hour trips and 32 PM peak-hour trips. Applying the passenger car equivalent conversion factor for trucks, peak construction of the proposed project would generate 86 total daily trips, including 35 AM peak-hour trips and 35 PM peak-hour trips.

Table 9. Peak Phase Construction Trip Generation

Vehicle Type	Daily Quantity	Daily Trips1	AM Peak Hour			PM Peak Hour		
			In	*Out*	*Total*	*In*	*Out*	*Total*
Trip Generation								
Workers	30	60	30	0	30	0	30	30
Vendor Trucks	5	10	1	0	1	0	1	1
Haul Trucks	1	2	1	0	1	0	1	1
Total Trips		**72**	**32**	**0**	**32**	**0**	**32**	**32**
Trip Generation with PCE								
Workers (1.0 PCE)	30	60	30	0	30	0	30	30
Vendor Trucks (2.0 PCE)	5	20	2	0	2	0	2	2
Haul Trucks (3.0 PCE)	1	6	3	0	3	0	3	3
Total PCE Trips		**86**	**35**	**0**	**35**	**0**	**35**	**35**

Source: Appendix B.
PCE = passenger car equivalent
1 Daily trips are a total of all inbound and outbound trips and represent one-way trips per the air quality analysis.

All construction-related activities would occur on site, but for any obstruction in the City of Lodi's right-of-way due to the presence and use of construction vehicles and equipment, the applicant/contractor would prepare and implement a Temporary Traffic Control Plan. The plan would be prepared per the Work Area Traffic Control Handbook (WATCH) Manual[4] and requirements of the City of Lodi's Public Works

4 The Work Area Traffic Control Handbook provides quick reference traffic control guidelines for work activities for contractors, cities, counties, utilities, and other agencies responsible for such work.

Department. The applicant/contractor would also obtain special permits from the California Department of Transportation for the movement of vehicles/loads exceeding statutory limitations.

As mentioned above, the proposed project would not require on-site personnel to maintain operations. Personnel would visit the site periodically throughout the year for scheduled maintenance and to test-operate the generators once each month; up to 200 trips per year are anticipated. Therefore, the proposed project would not result in a substantial number of daily trips related to operations.

The proposed project would generate temporary construction trips for a short duration and occasional operational trips. As shown in Table 9, based on the low trip generation potential of the project, the proposed project would not adversely affect to the capacity of any transportation facility in its vicinity during project construction or operation.

3.12 Visual Resources

A. Explain the project's conformance with the city/county General Plan, and city municipal code or county government code (e.g., zoning) governing scenic quality.

The proposed project would not conflict with the regulations and policies of the Lodi City Code or Lodi General Plan. According to the City of Lodi General Plan Map, the project site and adjacent water treatment facility are designated Open Space (City of Lodi 2022). Although the project proposes construction and operation of a generator facility on the currently undeveloped site that supports low grasses and several trees (and the General Plan aspires to protect open space areas from encroachment or destruction; see Guiding Principle P-G2), proposed development would generally be visually experienced as an extension of the adjacent water treatment facility (as opposed to an incompatible facility with no comparable development in the surrounding area). Further, components of the generator facility, including generators, transformers, step-up transformers, and switchgears, would generally be housed in non-descript enclosures that would present a lower scale and footprint compared to structures and tanks on the adjacent water treatment facility site. To help illustrate the before and after scenario of project implementation, a visual simulation of the generator facility was prepared from Mills Road. Figure 3.12-1a, Existing Conditions Key Map, shows the locations of the photo points. Existing viewpoints are shown in Figure 3.12-1b, Existing Conditions – Lodi Surface Water Treatment Facility Site. Figure 3.12-2a shows Key Observation Point 1 with a photograph and visual simulation of the project as experienced from Mills Road. Figure 3.12-2b shows Key Observation Point 2. As shown in the figures, the site displays an open, semi-natural character, and although the project would alter the existing site character, views into the facility site would be permitted due to inclusion of a chain-link perimeter fence along the south site boundary, and project components would be indistinct and of a substantially lesser scale than the adjacent water treatment facility structures. Although several trees within the site would be removed to accommodate the proposed generator facility, numerous trees within the viewshed would be retained and replacement trees would be installed alongside the nearby Lodi Lake Trail. As such, the landscape would continue to present as a primarily natural area supporting low grasses and numerous trees.

3.13 Water Resources

A. All the information required to apply for the following permits, if applicable, including:

- *Waste Discharge Requirements; National Pollutant Discharge Elimination System Permit(s); and/or a Section 401 Certification or Waiver from the appropriate Regional Water Quality Control Board (RWQCB);*
- *Construction and Industrial Waste Discharge and/or Industrial Pretreatment permits from wastewater treatment agencies;*
- *Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers, if applicable; and*
- *Underground Injection Control Permit(s) from the U.S. Environmental Protection Agency, California Geologic Energy Management Division (CalGEM), and RWQCB.*

The statutes that govern potential project activities that may affect water quality are the federal CWA (33 USC 1251 et seq.) and the state Porter–Cologne Water Quality Control Act (Porter–Cologne Act; California Water Code Section 13000 et seq.). Section 402 of the CWA established the National Pollutant Discharge Elimination System regulations. The project site operates under a Phase II Municipal Separate Storm Sewer System (MS4) Permit for the City of Lodi. Waste discharge requirements were not identified for the project site.

In California, stormwater discharges from industrial facilities are covered under the National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Industrial Activities. The Industrial General Permit requires implementation of management measures that would achieve the performance standard of best available technology economically achievable and best conventional pollutant control technology. The most recent Industrial General Permit (State Water Resources Control Board [SWRCB] Order No. 2014-0057-DWQ) was adopted on April 1, 2014, and became effective on July 1, 2015; it replaces the previous 1997 Statewide Permit for Industrial Stormwater (SWRCB Order No. 2014-0057-DWQ). The project site does not currently operate under an Industrial General Permit for its operations. It is not anticipated that an Industrial General Permit would be required for the project.

Stormwater discharges associated with construction and land disturbance activities are covered under the National Pollutant Discharge Elimination System Construction General Permit. The most recent Construction General Permit (SWRCB Order No. 2009-0009-DWQ) was adopted on September 2, 2009, and became effective on July 1, 2010 (the 2009 order has been administratively extended until a new order is adopted and becomes effective). A Construction General Permit is required for stormwater discharges from construction activities, including trenching for underground linear facilities, if land disturbance would be greater than 1 acre. A previous Notice of Intent for construction of the Lodi SWTF was completed to begin construction on February 1, 2011 (WDID 5S39C361905). Upon completion of construction, the permit was terminated on November 27, 2012. A Stormwater Pollution Prevention Plan for construction of the SWTF was completed to reduce the potential for the discharge of pollutants via stormwater until the termination of the permit (SWPPP Solutions Inc. 2011). The overall footprint of the proposed construction activities is estimated to be 61,000 square feet, with 900 feet of trenching (see Chapter 2, Project Design, Operation, and Location). Although the construction area exceeds the 1-acre threshold for the Construction General Permit, aquatic resources would not be impacted by the project, and would therefore not require a permit.

Limited change to the existing project site would be needed during construction and operations. Trenching during construction would use all excavated material for backfill; no fill or dredge materials would be discharged to local waters. It is not anticipated that a permit under Section 404 of the CWA or certification per Section 401 would be needed. A Phase II MS4 Permit approved Stormwater Management Plan is in place for the project site (City of Lodi 2012). The Stormwater Management Plan outlines specific BMPs required for construction activities impacting more than 1 acre, including sediment barriers and check dams (City of Lodi 2012). The project site is subject to the MS4 Permit approved Stormwater Management Plan for the City of Lodi, which requires preparation of a project stormwater plan and use of BMPs to prevent erosion and sediment runoff into the sewer system (City of Lodi 2012).

There would be no need for an injection well during construction or operations of the proposed project; therefore, an Underground Injection Control Permit would not be required.

B. A description of the hydrologic setting of the project.

The project site is within the jurisdiction of the Central Valley Regional Water Quality Control Board, which administers the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) and other water quality programs for the Central Valley Hydrologic Basin. The Central Valley region is separated into three basins that cover approximately one-fourth of California: Tulare Lake Basin, Sacramento River Basin, and San Joaquin River Basin. The Sacramento and San Joaquin River Basins flow through the Delta into the San Francisco Bay, and provide 51% of California's water supply (CVR RWQCB 2019). The project site is within the 15,880-square-mile San Joaquin River Basin, dominated by ephemeral streams and agricultural return flows (CVR RWQCB 2022). The project site is in an urban area within the basin, adjacent to Lodi Lake, which stems directly from the Mokelumne River. The lower Mokelumne River is a 303(d) listed body of water, impaired by zinc, mercury, and copper. Surface runoff on the project site does not enter the lake but is contained on site via a berm on the eastern boundary and low-lying areas within the project site.

Table 10 shows the watersheds that encompass the project site as designated by the U.S. Geological Survey's Watershed Boundary Dataset and the Basin Plan (USGS 2022b; CVR RWQCB 2019). These watersheds generally constitute the geographic basis around which many surface water quality problems and goals/objectives are defined in the Basin Plan. The project site is in the northern portion of the San Joaquin River hydrologic unit (Basin No. 5-022), near the border of the Sacramento River Basin. The U.S. Geological Survey's Watershed Boundary Dataset indicates that the project site is within the Lower Mokelumne River watershed and is further defined by the Sycamore Slough subwatershed (USGS 2022b).

Table 10. Watershed Designations by Agency/Source

Agency/Source	Hydrologic Unit Code/Basin No.	Analysis Scale	Name	Size (Square Miles)
USGS Watershed Boundary Dataset	180400	Basin	San Joaquin	15,824.86
	18040012	Subbasin	Upper Mokelumne	1,266.31
	1804001211	Watershed	Lower Mokelumne River	221.80
	180400121105	Subwatershed	Sycamore Slough	33.16
Water Quality Control Plan for the Central	5	Regional Water Quality Control Board Region	Central Valley	60,000
	5-022	Hydrologic Unit	San Joaquin River	15,880

Table 10. Watershed Designations by Agency/Source

Agency/Source	Hydrologic Unit Code/Basin No.	Analysis Scale	Name	Size (Square Miles)
Valley (Region 5)	—	Hydrologic Area	—	—
	—	Hydrologic Subarea	—	—

USGS = U.S. Geological Survey

C. A description of the water to be used and discharged by the project.

During construction, water may be used as a BMP for dust control on the project site. The project site is not paved, and water would only be used as necessary to wet the earth, so there would be no off-site discharge of water from the project site associated with dust control. Water would not be used during operations because the project generators would be cooled by air.

D. Identify all project elements associated with stormwater drainage.

The project site is slightly downgradient from the southwest-adjoining railroad and other properties, but lies at a similar elevation to the northern-adjacent cemetery and the SWTF in the southern portion of the project site. According to the SWTF construction Stormwater Pollution Prevention Plan, run on from off-site sources is insignificant because of already developed drainage systems directing water away from the project site (SWPPP Solutions Inc. 2011). The SWTF is primarily paved and enclosed by a masonry wall, keeping stormwater restricted to the facility's drainage system leading to City of Lodi's storm sewer system. A berm separates the project site from Lodi Lake to the east, and the project site is unpaved with several low-points; therefore, stormwater primarily remains on the project site. The proposed project would enclose the area with a masonry wall to the west, which would further restrict stormwater discharge off the project site. The use of crushed rock cement for the project site may increase imperviousness on the project site. The proposed project would not impact any waterways and does not propose any permanent stormwater drainage infrastructure (e.g., drains, pipes, culverts).

E. An impacts analysis of the proposed project on water resources. This discussion shall include:

- *The effects of project demand on the water supply and other users of this source;*
- *The effects of construction activities and facility operation on water quality and to what extent these effects could be mitigated by implementation of best management practices;*
- *The effects of the project on the 100-year flood plain, flooding potential of adjacent lands or water bodies, or other water inundation zones.*

The proposed project would involve grading the project site, covering the generator location surfaces with crushed rock cement, and surrounding the project site with a masonry wall and chain-linked fence. Drainage would not be significantly impacted by the proposed project because the area would remain pervious, and stormwater would not be discharged to a waterway. The project would not require a water supply for operations, but may use water for dust control BMPs during construction. There is not a concern for water quality impairments because any water used would be contained to the project site and would not be discharged to a waterway. Because the site would involve more than 5,000 square feet of impervious surface, it would be subject to the Phase II MS4 Permit, to which the City of Lodi is a permittee. To comply

with this permit, the City of Lodi requires regulated projects to implement BMPs necessary to avoid water quality impacts to receiving waters, as outlined in a project stormwater plan, to be submitted to the City of Lodi, approved by the City of Lodi, and implemented during operations and maintenance, per the City of Lodi's Stormwater Management and Discharge Control Ordinance (Chapter 13.14 of the Municipal Code).

Flood zones for 100-year floods are mapped in the Federal Emergency Management Agency's Flood Insurance Rate Maps. According to the Federal Emergency Management Agency maps, the project site would not be impacted by a 100-year flood (FEMA 2022). The area directly adjacent to the project site to the east, Lodi Lake, and its walk path are within a 100-year zone.

3.14 Summary of Avoidance and Minimization Measures

Table 11 provides a summary of all BMPs, BACTs, and measures to be implemented during construction and operation, as identified throughout Chapter 3.

Table 11. Avoidance and Minimization Measures

Measure	Timing Requirements	Related Section
Air Quality and Greenhouse Gas Emissions		
Authority to Construct. The Authority to Construct (ATC) was submitted to the San Joaquin Valley Air Pollution Control District (SJVAPCD) for the proposed project. The proposed project will comply with permitting requirements under the ATC permit, including implementation of best available control technology (BACT).	Project operation	Section 3.1(A)
Greenhouse Gas Emissions Reduction Plan. The proposed project will comply with applicable measures in the California Department of Water Resource's (DWR) Greenhouse Gas Emissions Reduction Plan (GERP).	Project construction and operation	Section 3.1(F)
Best Management Practices (BMPs). The following DWR construction and maintenance BMPs will be implemented: Minimize idling time by requiring that equipment be shut down after 5 minutes when not in use (as required by the State Airborne Toxics Control Measure [13 CCR Section 2485]). Provide clear signage that posts this requirement for workers at the entrances to the project site, and provide a plan for the enforcement of this requirement. Maintain all construction equipment in proper working condition and perform all preventive maintenance. Required maintenance includes compliance with all manufacturer's recommendations, proper upkeep and replacement of filters and mufflers, and maintenance of all engine and emissions systems in proper operating condition. Maintenance schedules will be detailed in an Air Quality Control Plan prior to commencement of construction. Implement a tire inflation program on the jobsite to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on site and every 2 weeks for equipment that remains on site. Check vehicles used for hauling materials off site weekly for correct tire inflation. Procedures for the tire inflation	Project construction and operation	Section 3.1(F)

Table 11. Avoidance and Minimization Measures

Measure	Timing Requirements	Related Section
program will be documented in an Air Quality Management Plan prior to commencement of construction. Develop a project-specific ride-share program to encourage carpools and shuttle vans, and provide transit passes and secure bicycle parking for construction worker commutes. For deliveries to project sites where the haul distance exceeds 100 miles and a heavy-duty class 7 or class 8 semi-truck or 53-foot or longer box-type trailer is used for hauling, use a SmartWay certified truck to the maximum extent feasible. Develop a project-specific construction debris recycling and diversion program to achieve a documented 50% diversion of construction waste. Evaluate the feasibility of restricting all material hauling on public roadways to off-peak traffic congestion hours. During construction scheduling and execution, minimize, to the extent possible, uses of public roadways that would increase traffic congestion.		
Biological Resources		
Nesting Birds. To avoid potential direct and indirect impacts to nesting birds, activities will be conducted outside of the nesting season (September through February). If not feasible and construction occurs during the nesting season (February through August), the following measures will be implemented to avoid or minimize impacts to nesting birds: A qualified biologist will conduct a pre-construction survey for nesting birds no more than 2 days prior to ground-disturbing activities and tree removal during the nesting season (February through August). The survey will cover the limits of construction and suitable nesting habitat within 500 feet of the project site for raptors and 100 feet for other nesting birds, as feasible and accessible. If any active nests are observed during surveys, a qualified biologist will establish a suitable avoidance buffer from the active nest. The buffer distance will range from 50 to 500 feet and be determined based on factors such as the species of bird, topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule. Limits of construction to avoid active nests will be established in the field with flagging, fencing, or other appropriate barriers, and will be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist. Removal of any tree with an active nest will be delayed until the nests are no longer active, as determined by the qualified biologist.	Project construction	3.2(E)

Table 11. Avoidance and Minimization Measures

Measure	Timing Requirements	Related Section
If project activities are delayed, additional nest surveys will be conducted such that no more than 7 days elapse between the prior survey and vegetation removal activities. If an active nest is identified in or adjacent to the construction limits after construction has started, work in the vicinity of the nest will be halted until the qualified biologist can provide appropriate avoidance and minimization measures to ensure that the nest is not disturbed by construction. Appropriate measures may include a no-disturbance buffer until the birds have fledged and/or full-time monitoring by a qualified biologist during construction activities conducted near the nest.		
Cultural Resources and Tribal Cultural Resources		
Archaeological monitoring. Archaeological monitoring of trenching and other ground disturbance will be implemented during construction. An archaeological monitoring and discovery plan will be developed with DWR under the oversight of a qualified archaeological principal investigator. Prior to the initiation of ground-disturbing work, construction crews will be made aware of the potential to encounter cultural resources and the requirement for cultural monitors to be present during these activities. The requirement for a Native American monitor will be determined by the results of consultation and tribal engagement between DWR and traditionally culturally affiliated tribes. In the event that unanticipated cultural resources are encountered during construction activities, all construction work will immediately stop until DWR staff is notified and a qualified archaeologist can evaluate the sensitivity of the find and determine whether or not additional study is warranted. The level of sensitivity of the find will be assessed, and if warranted, additional efforts such as preparation of an archaeological treatment plan, testing, and/or data recovery, may be recommended prior to allowing construction to proceed in this area. The potential for avoidance and/or preservation should also be the primary consideration. Should human remains be uncovered, all work must stop immediately, and the County coroner must be contacted pursuant to California Health and Human Safety Code 7050.5(b). The requirement for Native American monitoring to occur should be determined by DWR based on the results of tribal engagement. In addition to archaeological monitoring, visually screening of the project is recommended along its eastern boundary using vegetation and creative plantings so as not to introduce modern features in view of the potential adjacent historic property, the Lodi Lake Park (P-39-005402).	Project construction	3.3(D)
Paleontological Resources		
Paleontological Monitoring. Prior to commencement of any grading activity on site, the California Department of Water Resources will	Project construction	3.7(D)

Table 11. Avoidance and Minimization Measures

Measure	Timing Requirements	Related Section
retain a qualified paleontologist meeting the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The paleontologist will prepare a Paleontological Resources Impact Mitigation Program for the project. The Paleontological Resources Impact Mitigation Program will be consistent with the guidelines of the SVP (2010) and include the following elements: project description, pre-construction worker environmental awareness training, frequency of monitoring, salvage protocols, reporting, and collections management. The qualified paleontologist or a qualified monitor meeting the SVP (2010) guidelines will be on site during all rough grading and other significant ground-disturbing activities in areas underlain by previously undisturbed Rincon Shale and below a depth of 5 feet below the existing ground surface in previously undisturbed Holocene alluvium. If excavations below 5 feet are not impacting previously undisturbed Rincon Shale or pre-Holocene alluvium, as determined by the qualified paleontologist, spot-check monitoring will ensue. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor shall temporarily halt and/or divert grading activity to allow recovery of the paleontological resources. The area of discovery will be roped off with a 50-foot-radius buffer to document and collect the fossils. Once documentation and collection of the find is completed, the monitor will remove the rope and allow grading to recommence in the area of the find. No monitoring is required during excavations that the paleontologist determines are within artificial fill or younger alluvium (e.g., Holocene age Quaternary alluvium, younger than approximately 11,700 years old).		
Public Health		
Compliance with ATC Permit. During the permitting process, the SJVAPCD will conduct a health risk assessment for the project. Compliance with the permitting process will ensure that operational emissions do not exceed applicable thresholds for health risk.	Project operation	3.9(A)
Traffic and Transportation		
Temporary Traffic Control Plan. DWR will prepare an implement a Temporary Traffic Control Plan. The plan would be prepared per Work Area Traffic Control Handbook (WATCH) Manual and requirements of the County's Public Works Department. DWR will also obtain special permits for the movement of vehicles/loads exceeding statutory limitations from Caltrans as necessary.	Project construction	3.11(A)
Water Resources		
Compliance with Phase II Municipal Separate Storm Sewer System (MS4) Permit. DWR will prepare and implement a Project Stormwater Plan to comply with the Phase II MS4 Permit. The project Stormwater Plan will be submitted to the City for approval, and implemented during operations.	Project operation	3.13(A) 3.13(E)

4 Compliance with Laws, Ordinances, Regulations, and Standards

Provide tables which identify:

A. Laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and

B. Each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state, and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.

Table 12 provides a non-exhaustive summary of applicable laws, regulations, ordinances, and standards relevant to the project, and discusses project consistency with each item. Where appropriate, the project consistency discussion refers to the analysis provided in Chapter 3, Environmental Information. Otherwise, project consistency may be directly discussed in the table.

Table 12. Applicable Laws, Regulations, Ordinances, and Standards

Applicable Laws, Regulations, Ordinances, and Standards	Project Consistency
Air Quality and Greenhouse Gas Emissions	
Federal Clean Air Act – National Ambient Air Quality Standards	**Consistent.** See Section 3.1. The project was evaluated against San Joaquin Valley Air Pollution Control District (SJVAPCD) thresholds adopted to determine consistency with attainment plans for achieving federal and state ambient air quality standards and was found to be less than significant. Furthermore, the project would comply with all federal regulations through the New Source Review permitting process.
Federal Hazardous Air Pollutants – National Emission Standards for Hazardous Air Pollutants (HAPs)	**Consistent**. See Section 3.1 and Section 3.9. The project would comply with national emissions standards for HAPs through the New Source Review permitting process. The SJVAPCD would prepare a health risk assessment and require Toxic Best Available Control Technology (BACT) to reduce risk if necessary.
California Clean Air Act – California Ambient Air Quality Standards	**Consistent.** See Section 3.1. The project was evaluated against SJVAPCD thresholds adopted to determine consistency with attainment plans for achieving federal and state ambient air quality standards and was found to be less than significant.
San Joaquin Valley Air Pollution Control District (SJVAPCD) Regulation II Permits, Rule 2010 Permits Required Rule	**Consistent.** See Section 3.1. The project would submit an Authority to Construct application in accordance with Rule 2010.

Table 12. Applicable Laws, Regulations, Ordinances, and Standards

Applicable Laws, Regulations, Ordinances, and Standards	Project Consistency
SJVAPCD Regulation II Permits, Rule 2201 New and Modified Stationary Source Review Rule	**Consistent.** See Sections 3.1 and 3.9. The project would submit an Authority to Construct permit application and would follow the SJVAPCD permitting process.
SJVAPCD Regulation IV Prohibitions, Rule 4001 New Source Performance Standards	**Consistent.** See Sections 3.1 and 3.9. Through the permitting process the project would comply with new source performance standards.
SJVAPCD Regulation IV Prohibitions, Rule 4002 National Emission Standards for Hazardous Air Pollutants	**Consistent.** See Sections 3.1 and 3.9. Through the permitting process the project would comply with HAPs standards.
SJVAPCD Regulation IV Prohibitions, Rule 4101 Visible Emissions	**Consistent.** See Sections 3.1 and 3.9. Through the permitting process the project would comply with visible emission limits.
SJVAPCD Regulation IV Prohibitions, Rule 4102 Nuisance	**Consistent.** See Sections 3.1 and 3.9. Through the permitting process the project would comply with prohibitions of discharges of air contaminants.
SJVAPCD Regulation IV Prohibitions, Rule 4703 Stationary Gas Turbines.	**Consistent.** See Sections 3.1 and 3.9. Through the permitting process the project would comply with standards established for stationary gas turbines.
SJVAPCD Regulation VIII Fugitive Dust Prohibitions, Rule 8021.	**Consistent.** See Sections 3.1 and 3.9. The project would comply with Regulation VIII and implement best management practices to limit fugitive dust impacts.
Biological Resources	
Federal Endangered Species Act	**Consistent.** See Section 3.2. The analysis considered special-status plant and wildlife species, which are defined as those that are listed, proposed for listing, or candidates for listing as threatened or endangered under the federal Endangered Species Act.
Migratory Bird Treaty Act	**Consistent.** See Sections 3.2(D) and 3.2(E). The project includes measures to minimize impacts to birds protected under the Migratory Bird Treaty Act.
California Endangered Species Act	**Consistent.** See Section 3.2. The analysis considered special-status plant and wildlife species, which are defined as those that are listed or candidates for listing as threatened or endangered under the California Endangered Species Act.
California Fish and Game Code, Sections 3503, 3503.5, 3511, 3513	**Consistent**. See Sections 3.2(D) and 3.2(E). The project includes measures to minimize impacts to birds protected under California Fish and Game Code Sections 3503, 3503.5, 3511, and 3513.
California Fish and Game Code, Section 4150	**Consistent**. See Section 3.2. The analysis considers mammals protected under the California Fish and Game Code.
California Fish and Game Code Section 1602 – Lake and Streambed Alteration Agreement	**Consistent.** See Section 3.2. The project would not alter any river, stream, or lake.
Cultural Resources and Tribal Cultural Resources	
National Register of Historic Places (NRHP)	**Consistent.** See Section 3.3 and Appendix D. The submitted records search includes a review of the NRHP. The analysis in Section 3.3 considers recorded and eligible resources.

Table 12. Applicable Laws, Regulations, Ordinances, and Standards

Applicable Laws, Regulations, Ordinances, and Standards	Project Consistency
California Register of Historical Resources	**Consistent.** See Section 3.3 and Appendix D. The submitted records search includes a review of the California Register of Historical Resources.
California Health and Safety Code, Section 7050.5	**Consistent.** See Section 3.3 and Appendix D. Unanticipated discovery of human remains would comply with California Health and Safety Code Section 7050.5 requirements.
National Park Service - Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines	**Consistent.** See Section 3.3 and Appendix D. All field practices were executed in accordance with Office of Historic Preservation professional standards and conducted under the direction of an archaeologist who meets the Secretary of Interior's standards.
California Natural Resources Agency's Tribal Consultation Policy and DWR's Tribal Engagement Policy	**Consistent.** See Sections 3.3(C) and 3.3(D), and Appendix D. Letters were sent to tribal groups consistent with the requirements of these policies.
Hazardous Materials	
Title 40 USC, Chapter 1, Subchapter I, Parts 260-265 – Solid Waste Disposal Act/ Federal Resource Conservation and Recovery Act of 1976; Title 19 CCR, Chapter 2, Subchapter 3, Sections 2729–2734/California Health and Safety Code (HSC) Division 20, Chapter 6.95, Sections 25500–25520 Title 22 CCR, Division 4.5 – Environmental Health Standards for the Management of Hazardous Waste; Title 22 California HSC, Division 20, Chapter 6.5 – California Hazardous Waste Control Act of 1972; 19 CCR 2735.1 et seq – California Accidental Release Prevention Program	**Consistent.** Project operation and construction would manage solid wastes, including hazardous wastes, as required by this rule. Hazardous wastes generated on the project site would be documented, stored, transported, and disposed of in accordance with this and local laws. Both federal hazardous waste characteristics and state hazardous waste characteristics apply.
Title 14 CCR, Division 7, Chapter 8.2 – Electronic Waste Recovery and Recycling Act of 2003	**Consistent.** Universal wastes, such as batteries and light bulbs, and electronic wastes would be transported and disposed of appropriately during construction and operation of the project.
Title 40 USC, Chapter 1, Subchapter D, Part 112 – Oil Pollution Prevention; Title 22 California HSC, Division 20, Chapter 6.67, Sections 25270 to 25270.13 – Aboveground Petroleum Storage Act	**Consistent.** A Spill, Prevention, Control, and Countermeasure Plan would be prepared for any aboveground petroleum or oil storage of more than 1,320 gallons. Aboveground petroleum storage of more than 10,000 gallons would also comply with the Aboveground Petroleum Storage Act.
Title 40 USC, Chapter 1, Subchapter C, Part 61 – National Emission Standards for Hazardous Air Pollutants, Subpart M – National Emission Standard for Asbestos; Enforcement of the NESHAP Regulation, HSC Section 39658(b)(1); Contractors State License Board; Title 15 USC, Chapter 53, Subchapter I, Section 2601 et seq. – Toxic Substances Control Act of 1976	**Consistent.** A licensed contractor would conduct asbestos surveys and abate asbestos-containing materials should they be identified in materials scheduled for removal during project construction or operation.
Title 42 U.S. Code of Federal Regulations, Chapter 116 – Emergency Planning and Community Right-to-Know Act; HSC, Division 20, Chapter 6.11, Sections 25404- 25404.9	**Consistent.** Storage of hazardous materials on the project site at or above reportable quantities would be reported to the local Certified Unified Program Agency (CUPA). The local CUPA administers multiple programs as the CUPA.

Table 12. Applicable Laws, Regulations, Ordinances, and Standards

Applicable Laws, Regulations, Ordinances, and Standards	Project Consistency
Sections– Unified Hazardous Waste and Hazardous Materials Management Regulatory Program	
U.S. Environmental Protection Agency (EPA) Regional Screening Levels (RSLs); Human Health Risk Assessment Note 3 – DTSC Modified Screening Levels (DTSC-SLs); Environmental Screening Levels (ESLs)	**Consistent.** Screening levels established by the EPA, Department of Toxic Substances Control (DTSC), and State Water Resources Control Board would be used in the event that contaminated soils are identified. Applicable screening levels for the proposed use of the project site would be used to evaluate if remediation or contaminated material removal is required.
Title 29 USC, Part 1910 et seq. – Occupational Safety and Health Administration (OSHA) Standards; Title 29 USC, Part 1926 et seq. – Safety and Health Regulations for Construction; Title 8 CCR – Safety Orders	**Consistent.** Construction and operational workers would be protected under federal and state OSHA rules and regulations, and operators of the project site would comply with these rules and regulations.
Title 49 USC, Part 172, Subchapter C – Shipping Papers; Title 13 CCR, Division 2, Chapter 6 – Transportation of Hazardous Waste	**Consistent.** Hazardous wastes generated on the project site during construction and operation, if any, would be documented and transported by licensed transporters for off-site disposal to appropriately licensed disposal facilities.
California Health & Safety Code Sections 124125 to 124165; California Health & Safety Code Sections 105275 to 105310; California Health & Safety Code Section 105250; California Civil Code Section 1941.1; California Health & Safety Code Sections 17961, 17980, 124130, 17920.10, 105251 to 105257; California Civil Code Sections 1102 to 1102.16; California Education Code Sections 32240 to 32245; California Labor Code Sections 6716 to 6717; California Health & Safety Code Sections 116875 to 116880; California Health & Safety Code Sections 105185 to 105197	**Consistent.** Structures and materials on the project site scheduled for demolition or removal would be surveyed for lead-based paints and, if present, would be abated. Survey and abatement would be conducted by a licensed contractor. Removed materials would be transported and disposed of in accordance with applicable laws and regulations.
San Joaquin Valley Air Pollution Control District Rule 4301, 4601, 4603, 4623	**Consistent.** Operation of fuel burning equipment, such as furnaces and heaters, architectural and metal coatings applied during construction, and organic liquids (such as petroleum products) stored during construction and operation on the project site would comply with applicable laws and regulations.
Land Use	
City of Lodi General Plan 2010	**Consistent.** The project is consistent with applicable policies pertaining to public facilities that direct the safe and compatible development of public facilities. The project is also consistent with policies guiding the protection and development of open space and Public/Quasi-Public lands.
City of Lodi Code of Ordinances	**Consistent.** The project is consistent with the allowable uses and development standards for Open Space and Public and Community Facilities Zoning District as established by the Code of Ordinances.

Table 12. Applicable Laws, Regulations, Ordinances, and Standards

Applicable Laws, Regulations, Ordinances, and Standards	Project Consistency
Noise	
Chapter 9.24 of the Lodi Municipal Code.	**Consistent.** See Section 3.6(D). Operational noise from the project would be in compliance with City of Lodi's noise regulations.
Paleontological Resources	
Paleontological Resources Protection Act of 2009, Federal Land Policy Management Act of 1976, and The National Environmental Policy Act of 1969 (if federal nexus)	**Consistent.** See Section 3.7, Paleontological Resources, which discusses the potential for the project to impact paleontological resources and provides measures for minimization of impacts.
Population and Housing	
N/A	
Public Health	
Refer above to Air Quality and Greenhouse Gas Emissions.	
Soils and Geology	
Federal Earthquake Hazards Reduction Act	**Consistent.** See Section 3.10(C), which provides an analysis of potential geologic hazards and standard compliance relevant to the project.
Federal and State Occupational Safety and Health Administration Regulations	**Consistent.** See Section 3.10(C), which provides an analysis of potential geologic hazards and standard compliance relevant to the project.
California Building Code	**Consistent.** See Section 3.10(C), which provides an analysis of potential geologic hazards and standard compliance relevant to the project.
California Seismic Hazards Mapping Act	**Consistent**. See Section 3.10(C), which provides an analysis of potential geologic hazards and standard compliance relevant to the project.
Traffic and Transportation	
City of Lodi General Plan, Transportation Element Adopted 2014, Republished April 2010	**Consistent**. See Section 3.11(A) for a discussion of compliance with applicable transportation plans.
2022 Regional Transportation Plan & Sustainable Communities Strategy Plan, SJCOG, Adopted 2022	**Consistent**. See Section 3.11(A) for a discussion of compliance with applicable transportation plans.
Governor's Office of Planning and Research (OPR) has clarified in its Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018	**Consistent**. See Section 3.11(B) for analysis of vehicle miles traveled (VMT) impacts consistent with the OPR Technical Advisory.
Visual Resources	
City of Lodi General Plan	**Consistent**. See Section 3.12 for relevant analysis.
Water Resources	
Federal Clean Water Act (CWA) – Section 404	**Consistent.** See Sections 3.13(A) and 3.13(E). The site was previously regulated under CWA Section 404 for the construction of the Lodi Surface Water Treatment Facility. The permit was terminated in 2012. The City of Lodi operates under a Phase II Municipal Separate Storm Sewer System (MS4)

Table 12. Applicable Laws, Regulations, Ordinances, and Standards

Applicable Laws, Regulations, Ordinances, and Standards	Project Consistency
	Permit. It is not anticipated that a permit under Section 404 of the CWA would be required for the proposed project.
Federal Clean Water Act – Section 401	**Consistent**. See Sections 3.13(A) and 3.13(E). It is not anticipated that certification per Section 401 of the CWA would be needed.
Porter-Cologne Water Quality Control Act	**Consistent.** See Sections 3.13(A) and 3.13(E). It is not anticipated that certification per the Porter-Cologne Water Quality Control Act would be needed.

Table 13 provides a list of anticipated permits, leases, and approvals outside of DWR.

Table 13. Anticipated Permits, Leases, and Approvals

Agency	Permit, Lease, and/or Approval
California Department of Transportation (Caltrans)	If applicable, the project's contractor will complete and submit an application for a Transportation Permit, which is required to obtain special permits for the movement of vehicles/loads exceeding statutory limitations on the size, weight, and loading of vehicles contained in Division 15 of the California Vehicle Code from Caltrans.
City of Lodi	If applicable, the contractor will prepare a Temporary Traffic Control Plan per the Work Area Traffic Control Handbook (WATCH) manual and/or follow the requirements of Encroachment and/or Transportation Permit per City of Lodi, Public Works Department Permit Division.
	Phase II Municipal Separate Storm Sewer System permit compliance
San Joaquin Valley Air Pollution Control District	Authority to Construct or Permits to Operate

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