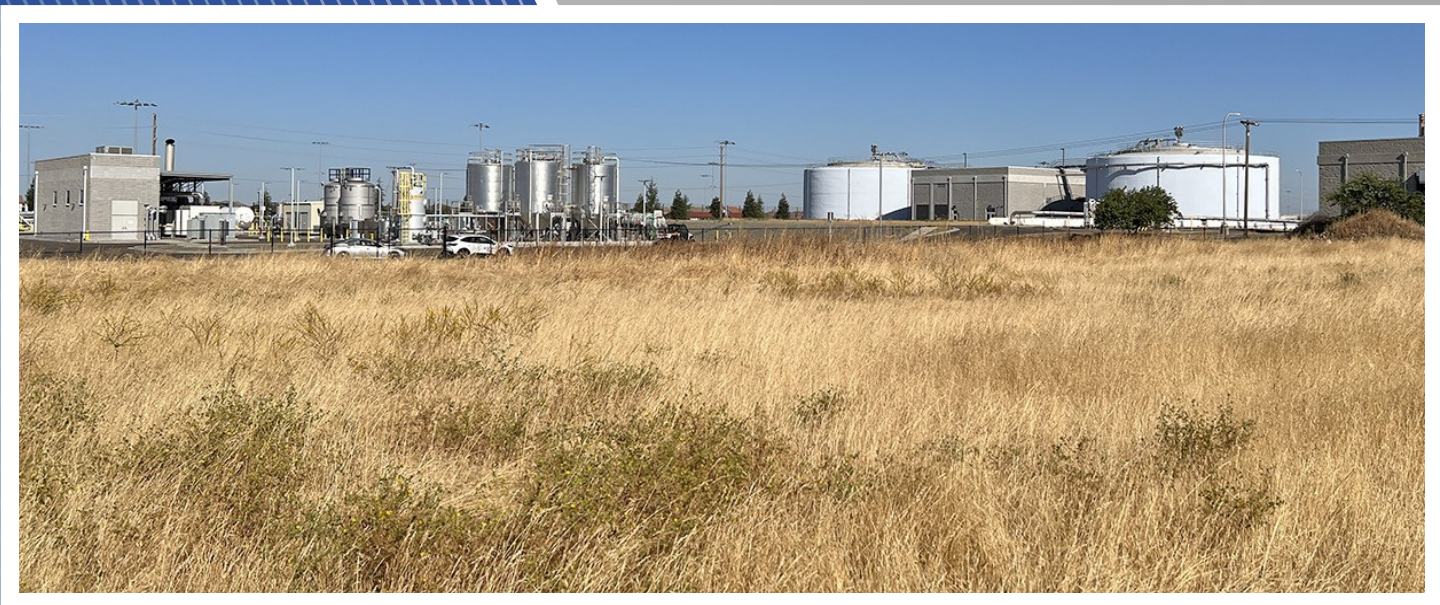


INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Pleasant Grove Wastewater Treatment Plant Electrical Expansion Project



Prepared for:



City of Roseville

August 2026

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Pleasant Grove Wastewater Treatment Plant Electrical Expansion Project



Prepared for:

City of Roseville

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PROPOSED MITIGATED NEGATIVE DECLARATION

PROJECT: PLEASANT GROVE WASTEWATER TREATMENT PLANT ELECTRICAL EXPANSION PROJECT

LEAD AGENCY: CITY OF ROSEVILLE

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the project. The City of Roseville (City) is the CEQA lead agency because it is responsible for approving and carrying out the project.

PROJECT DESCRIPTION SUMMARY

The City is proposing to consolidate and expand the Pleasant Grove Wastewater Treatment Plant (PGWWTP) electrical supply from Roseville Electric Utility and PGWWTP's emergency generators into a single expandable facility. The project would include construction of a multi-purpose, concrete masonry block switchgear and generator electrical building (Electrical Building No. 3), a 12-kilovolt (kV) utility feed, two new generators with diesel fuel storage, and a plant drain pump station for stormwater and facility drain collection. Two 2,500-kilowatt (kW) generators would be installed as part of the project with space reserved for two additional generators to be installed in the future as the PGWWTP expands. Similarly, the bulk diesel fuel storage includes a dedicated 15,000-gallon, double-walled steel storage tank for each generator with room to add two additional tanks as needed. All stormwater or incidental spills would remain on the PGWWTP site and would be captured at the new PGWWTP drain pump station to be pumped to a holding basin at the head of the PGWWTP for treatment or clean-up and disposal.

FINDINGS

An Initial Study has been prepared to assess the project's potential effects on the environment and the significance of those effects. Based on the Initial Study, it has been determined that the project would not have any significant effects on the environment once mitigation measures are implemented. The conclusion is supported by the following findings:

1. The project would have no impact related to agriculture and forestry resources, land use and planning, mineral resources, and recreation.
2. The project would have a less-than-significant impact on aesthetics, air quality, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, population and housing, public services, transportation, utilities and service systems, and wildfire.
3. Mitigation is required to reduce potentially significant impacts related to biological resources, cultural resources, and tribal cultural resources to less-than-significant levels.

Pursuant to Section 21082.1 of the California Environmental Quality Act, the City has independently reviewed and analyzed the Initial Study and Mitigated Negative Declaration for the project and finds that the Initial Study and Mitigated Negative Declaration reflects the independent judgment of the City. The City further finds that the project mitigation measures shall be implemented as stated in the Mitigated Negative Declaration.

I hereby approve this project:

Jessica Lynch, Environmental Coordinator

City of Roseville

(to be signed upon approval of the project after the public review period is complete)

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LIST OF ABBREVIATIONS

°F	Fahrenheit
ADWF	average dry weather flow
af/yr	acre-feet per year
amsl	above mean sea level
BACT	best available control technology
BMP	best management practices
BO	Biological Opinion
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CBC	California Building Code
CEC	California Energy Commission
CESA	California Endangered Species Act
CGS	California Geologic Survey
CHRIS	California Historical Resources Information System
City	City of Roseville
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CRPR	California Rare Plant Rank
CWHR	California Wildlife Habitat Relationships
dBA	A-weight decibels
Delta	Sacramento–San Joaquin Delta
DOC	State of California Department of Conservation
DTSC	California Department of Toxic Substances Control
EAP	Emergency Action Plan
EPA	US Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHSZ	fire hazard severity zone
FIRM	Flood Insurance Rate Maps

FTA	Federal Transit Administration
General Permit	General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity
HCP/NCCP	Habitat Conservation Plan/Natural Community Conservation Plan
IBC	International Building Code
IPaC	Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
kV	kilovolt
kW	kilowatt
mgd	million gallons per day
MRF	Materials Recovery Facility
MRZ	Mineral Resource Zone
MTCO ₂ e/year	metric tons of carbon dioxide equivalent per year
MTP/SCS	metropolitan transportation plan/sustainable communities strategy
NAAQS	national ambient air quality standards
NCIC	North Central Information Center
NFIP	National Flood Insurance Program
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
PCAPCD	Placer County Air Pollution Control District
PCCP	Placer County Conservation Program
PCWA	Placer County Water Agency
PG&E	Pacific Gas and Electric Company
PGWWTP	Pleasant Grove Wastewater Treatment Plant
ppb	parts per billion
project	PGWWTP Electrical Expansion Project
RFD	Roseville Fire Department
Roseville Electric	City of Roseville Electric Utilities
RPM	Reasonable and Prudent Measures
SAP	City of Roseville Communitywide Sustainability Action Plan
SCADA	supervisory control and data acquisition
SF	square foot
SFHA	Special Flood Hazard Areas
SFNA	Sacramento Federal Ozone Nonattainment Area
SJWD	San Juan Water District

SO ₂	sulfur dioxide
SPCC	Spill Prevention Control and Countermeasure Plan
SRA	State Responsibility Area
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TIMS	Transportation Injury Mapping System
UCMP	University of California Museum of Paleontology
USACE	US Army Corps of Engineers
USBR	US Bureau of Reclamation
USFWS	US Fish and Wildlife Service
VMT	vehicle miles travelled
WDR	Waste Discharge Requirements
WPWMA	Western Placer Waste Management Authority
WRSL	Western Regional Sanitation Landfill
WRSP	West Roseville Specific Plan

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1 INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This initial study/proposed mitigated negative declaration (IS/Proposed MND) has been prepared by the City of Roseville (City) to evaluate potential environmental effects resulting from the Pleasant Grove Wastewater Treatment Plant (PGWWTP) Electrical Expansion Project (project). Chapter 2 "Project Description" presents the detailed project information.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a "public agency shall prepare...a proposed negative declaration or mitigated negative declaration...when: (a) The Initial Study shows that there is no substantial evidence...that the project may have a significant impact on the environment, or (b) The Initial Study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less-than-significant effect by adoption of mitigation or by revisions in the project design.

1.2 PURPOSE OF THIS DOCUMENT

As described in the environmental checklist (Chapter 3), the project would not result in any unmitigated significant environmental impacts. In those instances where a significant impact may result, measures that would clearly mitigate the impact have been adopted. Therefore, an IS/Proposed MND is the appropriate document for compliance with the requirements of CEQA. This IS/Proposed MND conforms to these requirements and to the content requirements of State CEQA Guidelines Section 15071.

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the project. The City is the CEQA lead agency because they are responsible for approving and carrying out the project. The purpose of this document is to present to decision-makers and the public information about the environmental consequences of implementing the project. This disclosure document is being made available to the public for review and comment. This IS/Proposed MND will be available for a 30-day public review period from August 24, 2026 to September 28, 2026.

Supporting documentation referenced in this document is available for review at:

City of Roseville
Development Services Department
311 Vernon Street
Roseville, CA 95678

Comments should be addressed to:

Jessica Lynch
City of Roseville
Development Services Department
311 Vernon Street
Roseville, CA 95678
E-mail comments may be addressed to: jjlynch@roseville.ca.gov.

If you have questions regarding the IS/Proposed MND, please call Jessica Lynch at: (916) 774-5352. If you wish to send written comments (including via e-mail), they must be postmarked by September 28, 2026.

After comments are received from the public and reviewing agencies, the City may (1) adopt the MND and approve the project; (2) undertake additional environmental studies; or (3) abandon the project. If the project is approved and funded, the project proponent may proceed with the project.

1.3 SUMMARY OF FINDINGS

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts of the project.

Based on the issues evaluated in that chapter, it was determined that the project would have either no impact or a less-than-significant impact related to most of the issue areas identified in the Environmental Checklist, included as Appendix G of the State CEQA Guidelines. These include the following issue areas:

- ▶ aesthetics
- ▶ agriculture and forest resources
- ▶ air quality
- ▶ energy
- ▶ geology and soils
- ▶ greenhouse gas emissions
- ▶ hazards and hazardous materials
- ▶ hydrology and water quality
- ▶ land use and planning
- ▶ mineral resources
- ▶ noise
- ▶ population and housing
- ▶ public services
- ▶ recreation
- ▶ transportation
- ▶ wildfire

Potentially significant impacts were identified for biological resources, cultural resources, and Tribal cultural resources; however, mitigation measures included in the IS/Proposed MND would clearly reduce all impacts to a less-than-significant level.

1.4 ENVIRONMENTAL PERMITS

In addition to the City's approval of the project, the project would require permits from the Placer County Air Pollution Control District, State Water Resources Control Board, and the City of Roseville, Development Services Department. These permits are described in Chapter 2 "Project Description."

1.5 DOCUMENT ORGANIZATION

This IS/Proposed MND is organized as follows:

- ▶ Chapter 1: Introduction. This chapter provides an introduction to the environmental review process. It describes the purpose and organization of this document as well as presents a summary of findings.
- ▶ Chapter 2: Project Description and Background. This chapter describes the purpose of and need for the proposed project, identifies project objectives, and provides a detailed description of the project.
- ▶ Chapter 3: Environmental Checklist. This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines if project actions would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant, an EIR would be required. For this project, however, none of the impacts were determined to be significant after implementation of mitigation measures.
- ▶ Chapter 4: References. This chapter lists the references used in preparation of this IS/Proposed MND.
- ▶ Chapter 5: List of Preparers. This chapter identifies report preparers.

2 PROJECT DESCRIPTION

2.1 BACKGROUND

The City of Roseville (City) owns and operates the Pleasant Grove Wastewater Treatment Plant (PGWWTP) on behalf of the South Placer Wastewater Authority. CEQA compliance for construction and initial operation of the PGWWTP was achieved with certification of the *Roseville Regional Wastewater Treatment Service Area Master Plan EIR* (City of Roseville 1996).

The PGWWTP began operation in 2004 but was constructed in four phases between 2000 and 2010. In 2021, the PGWWTP Expansion and Energy Recovery Projects were completed, expanding the treatment capacity of the PGWWTP from 9.5 million gallons per day (mgd) average dry weather flow (ADWF) to 12 mgd ADWF and adding an energy recovery facility that converts biogas from the wastewater treatment process to produce electricity and compressed natural gas to fuel the City's garbage truck fleet.

The City identified that upon completion of the Expansion and Energy Recovery Projects, the electrical capacity of the PGWWTP, and the standby generation capacity would be exceeded triggering the need for an expansion of the electrical power system. The proposed project would address the need for an electrical system expansion at the PGWWTP.

2.2 PROJECT LOCATION

The project facilities would be constructed within the existing PGWWTP boundary and immediately south of the existing PGWWTP boundary located at 5051 Westpark Drive in Roseville, California (Figures 2-1 and 2-2). The area immediately south of the PGWWTP and east of the Energy Recovery Facilities is City-owned property, intended for future wastewater treatment infrastructure and deeded to the City as part of the *West Roseville Specific Plan* (City of Roseville 2004). The PGWWTP is located on a 110-acre parcel located west of Del Webb Sun City Sierra Pines Golf Course, north of Pleasant Grove Boulevard, and south of Blue Oaks Boulevard.

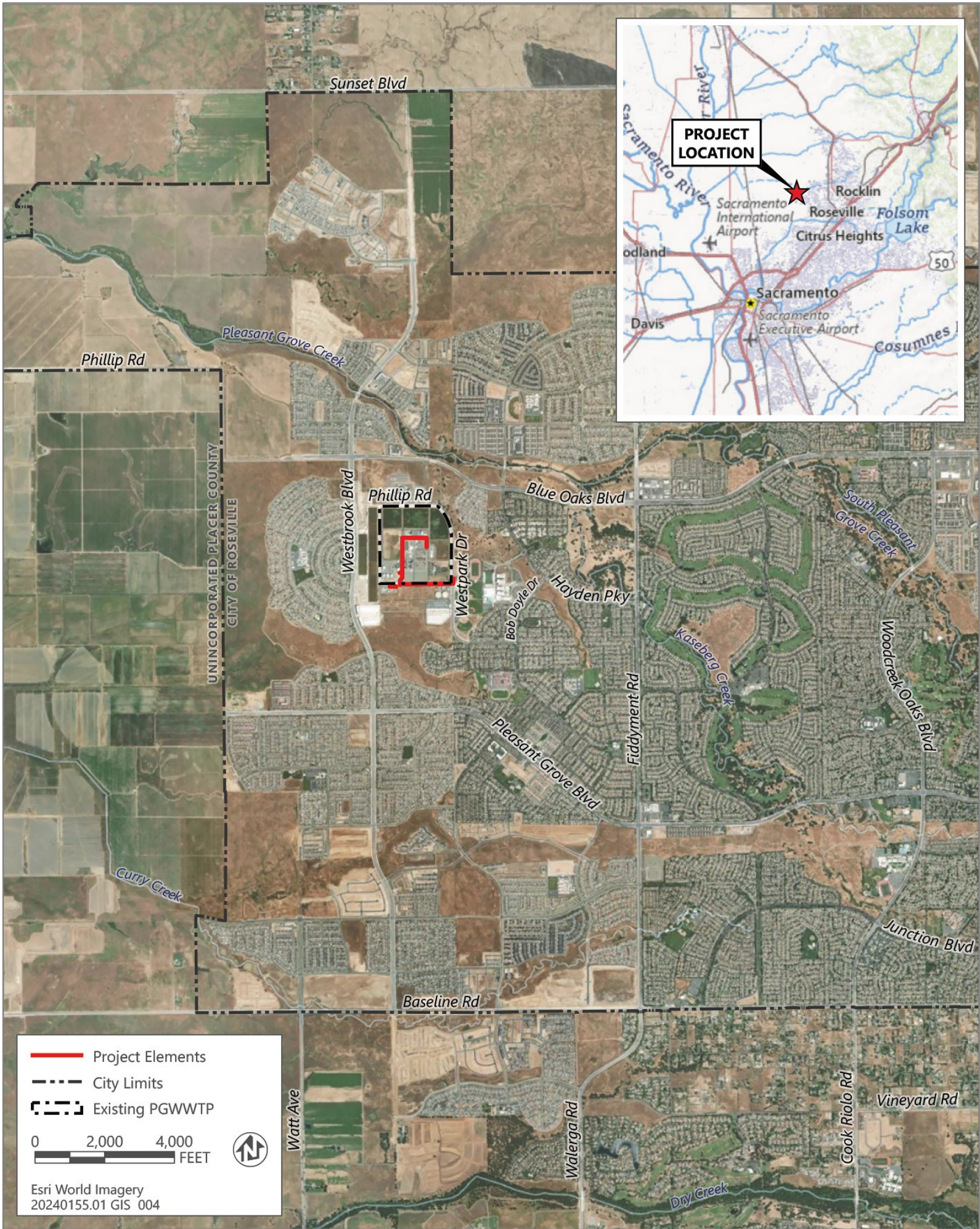
2.3 EXISTING FACILITIES

The PGWWTP presently treats 8.95 mgd ADWF and has a capacity to treat 12 mgd ADWF. Wastewater at the PGWWTP is currently treated to tertiary levels and disinfected. It is either discharged into the Pleasant Grove Creek or pumped into the City's recycled water distribution system. The City of Roseville Electric Utility (Roseville Electric) provides electrical service to customers within the City, including the PGWWTP. Roseville Electric purchases electricity from the Western Area Power Agency and the Northern California Power Agency, which acquire electricity from various sources. There are currently two electrical buildings at the PGWWTP, and electricity is provided via a 12-kilovolt (kV) line. The existing PGWWTP is also served by two 1,825 kilowatt (kW) standby generators with a combined capacity of 3,640 kW. The existing generators do not have sufficient capacity for the PGWWTP without load shedding equipment based on priorities set by operations in supervisory control and data acquisition (SCADA).

2.4 PROJECT OBJECTIVES

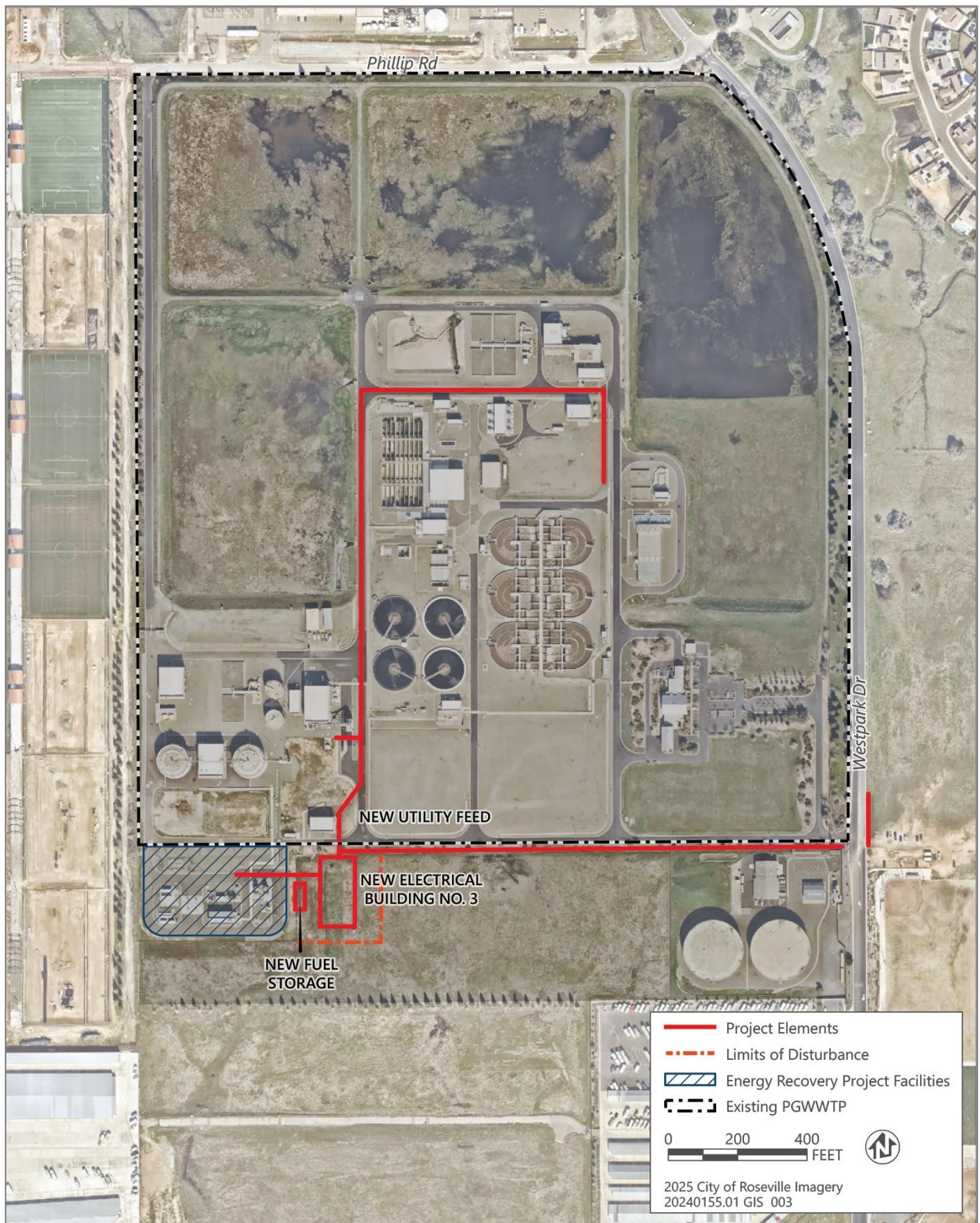
The Roseville PGWWTP Electrical Power System Capacity Expansion Project (project) aims to fulfill the following goals:

- ▶ establish a redundant electrical feed from Roseville Electric,
- ▶ prepare the PGWWTP for city growth and expanded capacity needs,
- ▶ upgrade the generator facility to allow improved air emission treatment and noise abatement, and
- ▶ consolidate the stormwater collection to the PGWWTP drain system on the southern end of the project area.



Source: Adapted by Ascent in 2025.

Figure 2-1 Project Vicinity



Source: Adapted by Ascent in 2025.

Figure 2-2 Project Area

2.5 PROPOSED PROJECT

The City is proposing to consolidate and expand the PGWWTP electrical supply from Roseville Electric and PGWWTP's emergency generators into a single expandable facility. The project would include construction of a multi-purpose, concrete masonry block switchgear and generator electrical building (Electrical Building No. 3), a 12-kV utility feed, two new generators with diesel fuel storage, and a plant drain pump station for stormwater and facility drain collection. Two 2,500-kW generators would be installed as part of the project with space reserved for two additional generators to be installed in the future as the PGWWTP expands. Similarly, the bulk diesel fuel storage includes a dedicated 15,000-gallon, double-walled steel storage tank for each generator with room to add two additional tanks as needed. All stormwater or incidental spills would remain on the PGWWTP site and would be captured at the new PGWWTP drain pump station to be pumped to a holding basin at the head of the PGWWTP for treatment or clean-up and disposal.

2.5.1 Electrical Building No. 3

The project would include construction of a new electrical building immediately east of the Energy Recovery Project Facilities and south of the existing PGWWTP boundary (Figure 2-2). The new building would house the new 12kV switchgear, new standby generators, and concrete pads for future standby generators. The new building would have a heating, ventilation, and air conditioning (HVAC) and mechanical room, station battery room, and an electrical control panel and PLC room. The electrical control panel and PLC room would be isolated from the switchgear for safety/ARC flash protection during breaker switching and connecting breakers. Associated duct banks, cable, wiring, and ancillary items would also be constructed.

2.5.2 Generators and Fuel Storage

Two new generators would be constructed as part of the project and connected to the 12kV switchgear. The new 12kV generators would be 2,500 kW each (2.5 megawatts [MW]), would have a combined 5MW capacity, which would eliminate the need to load shed equipment during power outages. Moving the generators to the 12kV switchgear would eliminate the exceedance of the current rating capacity and would allow for closed transition switching, therefore reducing WWTP disruptions. The switchgear equipment, generator building, and controls would also include capacity for two additional 2.5 to 3.0 MW generators that could be added in the future. Sound abatement (e.g., muffler devices on the generators and air flow baffles) would be installed for the generators. Two new bulk diesel fuel storage tanks would also be installed to provide fuel for the generators. Each generator would have a dedicated 15,000-gallon, double-walled steel storage tank for fuel storage.

2.5.3 Utility Feed

The PGWWTP currently receives power from the Fiddymont Substation. That feed provides 4MW of electricity. The proposed project would expand the existing feed, in cooperation with Roseville Electric to 8MW. This improvement would not require any additional underground infrastructure, only the replacement of the 12kV conductors to the PGWWTP and offsite modifications to the Roseville Electric system.

In addition to the expansion of the existing utility feed, a new 12kV utility feed would be installed from Westpark Drive to Electrical Building No. 3 from the West Plan Substation. A new 12kV conductor would be pulled in a new ductbank, approximately 1,700 feet in length, installed parallel to the existing Fiddymont ductbank. This new feed would provide a redundant 8MW power source for the PGWWTP improving resiliency of the facility.

2.5.4 Construction

Construction of the project would take approximately 3 years beginning in summer of 2027; however, with construction activities occurring for 18 months within that 3-year period. The new electrical building would be constructed first and would involve site clearing, grading, excavation, underslab piping/electrical, footings, pouring, and backfill. Then the equipment, piping, electrical, and controls would be installed. All vegetation would be stripped and grubbed from the project footprint and removed from the project area. Up to 20 ornamental trees would be removed for project construction. The City's Tree Preservation Ordinance (Roseville Municipal Code Chapter 19.66) protects native oak trees; however, no oak trees would be removed for the project.

The number of construction workers on-site would vary; however, between 4 and 20 workers are anticipated to be on-site at any given time during construction, and there may be several deliveries for materials each day with a few additional delivery trips during construction start-up and the end of construction. Equipment used for construction would include one or more of the following: excavator, backhoe, crane, dump truck/haul trucks, frontloader, bobcat/skidsteer, vibratory compactor, sheepsfoot compactor, gradeall forklift, paver, and loader.

Work hours would follow the City of Roseville Noise Ordinance and be limited to the hours between 7:00 a.m. and 7:00 p.m., Monday through Friday.

2.5.5 Operations

The project is expected to be operational in 2030. Operation of the project would not change the operating hours at the existing PGWWTP. Routine maintenance would be similar to or less than existing maintenance and would occur for all new facilities. Maintenance would generally include preventative maintenance, and daily, weekly, monthly, quarterly, and annual inspections. Operation of the project would not require additional employees to operate and maintain the new facilities; therefore, operation of the project would not result in an increase in long-term vehicle trips. In addition, the project would not increase electricity use but would provide adequate electrical capacity to serve the PGWWTP's for the next 50 years. It would also improve the resilience and redundancy of the PGWWTP's electrical system.

2.6 PROJECT APPROVALS

Permits and other project approvals that may be required by other agencies or City departments prior to project construction include the following:

- ▶ Placer County Air Pollution Control District – Authority to Construct Permit and Permit to Operate
- ▶ State Water Resources Control Board – National Pollutant Discharge Elimination System Permit
- ▶ City of Roseville Development Services – Building Permit

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3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1. Project Title: PGWWTP Electrical Expansion Project
2. Lead Agency Name and Address: City of Roseville, 311 Vernon Street, Roseville, CA 95678
3. Contact Person and Phone Number: Jessica Lynch, (916) 774-5352
4. Project Location: 5051 Westpark Drive in Roseville, California
5. Project Sponsor's Name and Address: City of Roseville, 311 Vernon Street, Roseville, CA 95678
6. General Plan Designation: See Section 3.11, "Land Use and Planning," below.
7. Zoning: See Section 3.11, "Land Use and Planning," below.
8. Description of Project: See Chapter 2 "Project Description."
9. Surrounding Land Uses and Setting: See Section 3.11, "Land Use and Planning," below.
10. Other public agencies whose approval is required: See Section 2.5 in Chapter 2, "Project Description."
11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

See Section 3.18, "Tribal Cultural Resources," below.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Where checked below, the topic with a potentially significant impact will be addressed in an environmental impact report.

- | | | |
|---|--|---|
| ☐ Aesthetics | ☐ Hazards / Hazardous Materials | ☐ Transportation |
| ☐ Agriculture and Forest Resources | ☐ Hydrology / Water Quality | ☐ Tribal Cultural Resources |
| ☐ Air Quality | ☐ Land Use / Planning | ☐ Utilities / Service Systems |
| ☐ Biological Resources | ☐ Mineral Resources | ☐ Wildfire |
| ☐ Cultural Resources | ☐ Noise | ☐ Mandatory Findings of Significance |
| ☐ Energy | ☐ Population / Housing | ☐ None |
| ☐ Geology / Soils | ☐ Public Services | ☒ None with Mitigation Incorporated |
| ☐ Greenhouse Gas Emissions | ☐ Recreation | |

DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- ☒ I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Jessica Lynch

Date August 20, 2026

Printed Name Jessica Lynch

Title Environmental Coordinator

Agency City of Roseville

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Environmental Setting

Aesthetic resources are generally defined as both the natural and built features of the landscape that contribute to the public's experience and appreciation of the environment. Depending on the extent to which a project's presence would negatively alter the perceived visual character and quality of the environment, there may be impacts to aesthetic resources.

The existing PGWWTP is located in an area mixed with development and undeveloped open space. Foreground views to the west and south are of non-native grassland, which are dry most of the year, and landscaping trees along the property line provide screening of the PGWWTP property. Foreground views to the east include the Placer Valley Sports Complex. Background views to the east, west, and south are of residential development, overhead utility lines, and a public storage facility. Views to the north are a contrast of the industrial development associated with Roseville Energy Park and the natural riparian area along Pleasant Grove Creek. The nearest sensitive viewers include visitors to Pistachio Park (approximately 140 feet), students at West Park High School (approximately 850 feet), and residences (approximately 1,000 feet) as measured from the nearest project element. Views of the existing PGWWTP include several concrete buildings, large tanks, chain-link fencing, lighting and utility infrastructure, and landscaping trees along the border of the property. Existing security lighting is used on-site. Because of the flat topography, surrounding residences generally have direct, but distant views of the PGWWTP.

There are no scenic roads, resources, or views within or adjacent to the project area (Caltrans 2026). In addition, the area is not designated as a scenic area in the *City of Roseville General Plan* (City General Plan) or *West Roseville Specific Plan* (WRSP).

3.1.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

No impact. A scenic vista is generally defined as a public viewpoint that provides expansive views of a highly valued landscape for the benefit of the public. There are no scenic vistas in the project vicinity or with views of the project area. Because the proposed project would not adversely affect a scenic vista, there would be no impact. No mitigation is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No impact. The proposed project would not be located near a designated or eligible state scenic highway (Caltrans 2026). The closest eligible state scenic highway is Highway 49, located approximately 18 miles northeast of the project area. Intervening distance and topography obscure views of the project area from Highway 49. Furthermore, the proposed project would not damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a scenic highway. Therefore, no impact would occur, and no mitigation is required.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-significant impact. The project area is surrounded by non-native grassland and mixed-use development. Although the proposed project would include construction of new facilities within and south of the existing PGWWTP, the addition of a new building and facilities to an already developed site would not substantially change the existing views of the area. Proposed facilities would be visible to people living in the residences located to the east, west, and south, motorists on surrounding roadways including Westpark Drive, Westbrook Boulevard, and Payson Avenue, and recreationists using the Placer Valley Sports Complex. Although views of the area would be altered through the addition of a new electrical building, the project would not substantially change the visual character of the area because the proposed project would be located at or immediately adjacent to the existing buildings at the PGWWTP site. The proposed new electrical building would be similar in height and visual appearance as the existing PGWWTP facilities. Minimal new lighting would be used for the new building consistent with existing security lighting. The project would be visually consistent with the existing PGWWTP and would not substantially change the surrounding visual character. Therefore, this impact would be less than significant, and no mitigation is required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less-than-significant impact. Glare is caused by light reflections from vehicles and building materials such as reflective glass and polished surfaces. During daylight hours, the amount of glare depends on the intensity and direction of sunlight. At night, artificial light can cause glare. The proposed project would include the addition of security lighting on the new building. The new lighting would be directed downward and fully screened to avoid nighttime lighting spillover effects on adjacent land uses and nighttime sky conditions consistent with the City of Roseville lighting standards. The limited amount of new lighting would be consistent with and represent a negligible addition relative to the existing facility lighting. In addition, proposed facilities would be constructed with non-reflective materials similar to the existing facilities. Therefore, this impact would be less than significant, and no mitigation is required.

3.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources.				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.				
In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Environmental Setting

Farmlands are mapped by the State of California Department of Conservation (DOC) under the Farmland Mapping and Monitoring Program (FMMP). Under the FMMP, land is delineated into the following eight categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Farmland of Local Potential, Grazing Land, Urban or Built-Up Land, and Other Land. The proposed facilities, including the electrical building, utility feed, two new generators with storage, and pump station would be within and immediately south of the existing PGWWTP. The existing PGWWTP is designated under the FMMP as Urban and Built-Up Land and is surrounded completely by Grazing Land although it is not being actively grazed. The areas immediately south and east of the PGWWTP are also designated as Grazing Land (DOC 2026a).

3.2.2 Discussion

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No impact. The proposed facilities would be constructed on developed land within the existing boundary of the PGWWTP and previously disturbed land immediately south of the existing PGWWTP boundary. Although the area directly south of the PGWWTP where the new electrical building would be located is designated as Grazing Land by the FMMP, it is not considered Important Farmland and is not being actively grazed. In addition, the PGWWTP is designated as Urban and Built-Up Land by the FMMP (DOC 2026a). Therefore, Important Farmland would not be converted to a non-agricultural use as a result of the project, and there would be no impact on Important Farmland. No mitigation is required.

- b) **Conflict with existing zoning for agricultural use or a Williamson Act contract?**

No impact. The PGWWTP and the area surrounding the PGWWTP where project facilities would be constructed are not subject to Williamson Act contract (DOC 2026b). Therefore, implementation of the project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur, and no mitigation is required.

- c) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

No impact. The PGWWTP and surrounding lands are zoned as Public/Quasi-Public, and the plant is owned and operated by the City. No portion of the existing PGWWTP or adjacent lands are zoned for forest land, timberland, or timberland zoned Timberland Production. Therefore, the project would not conflict with existing zoning for forest land or timberland and there would be no impact. No mitigation is required.

- d) **Result in the loss of forest land or conversion of forest land to non-forest use?**

No impact. The project facilities would be constructed within the boundary of the existing PGWWTP and immediately south of the existing PGWWTP. The footprint for these facilities is either disturbed or currently developed, and the area immediately south of the PGWWTP is intended for future wastewater treatment infrastructure. The new electrical building and part of the new utility feed would be located in an area of disturbed grassland. No forest lands exist within the project footprint. Therefore, implementation of the project would not result in conversion of forest land to non-forest uses, and the project would not otherwise affect forest lands. No mitigation is required.

- e) **Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

No impact. No forest or agricultural resources are located within or adjacent to the PGWWTP. Therefore, implementation of the project would not result in conversion of farmland to non-agricultural use or forest land to non-forest use. Therefore, there would be no impact, and no mitigation is required.

3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	☒ Yes		☐ No	
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

The project area is located in the City of Roseville within western Placer County, California, which is located within the Sacramento Valley Air Basin (SVAB). The SVAB also includes all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba counties and the eastern portion of Solano County.

The ambient concentrations of air pollutant emissions are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

The nearest sensitive receptor (i.e. West Park High School) to the project area is located approximately 850 feet east as measured from the nearest high school building to the nearest project element (i.e., utility line along Westpark Drive). Additionally, there are residential land uses located approximately 1,000 west, 1,250 feet northeast, and 1,650 feet southeast as measured from the property line of the residence to the nearest project element.

The SVAB is a relatively flat area bordered by the north Coast Ranges to the west and the northern Sierra Nevada to the east. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento–San Joaquin Delta (Delta) from the San Francisco Bay area. The Mediterranean climate type of the SVAB is characterized by hot, dry summers and cool, rainy winters. During the summer, daily temperatures range from 50 degrees Fahrenheit (°F) to more than 100°F. The inland location and surrounding mountains shelter the area from much of the ocean breezes that keep the coastal regions moderate in temperature. Most precipitation in the area results from air masses that move in from the Pacific Ocean, usually from the west or

northwest, during the winter months. More than half the total annual precipitation falls during the winter rainy season (November through February); the average winter temperature is a moderate 49°F. Another characteristic of SVAB winters are periods of dense and persistent low-level fog, which are most prevalent between storms. The prevailing winds are moderate in speed and vary from moisture-laden breezes from the south to dry land flows from the north.

The mountains surrounding the SVAB create a barrier to airflow leading to the entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. Poor air movement is most frequent in the fall and winter when high-pressure cells are present over the SVAB. The lack of surface wind during these periods, combined with the reduced vertical flow caused by a decline in surface heating, reduces the influx of air and leads to the concentration of air pollutants under stable meteorological conditions. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or with temperature inversions, which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

May through October is ozone season in the SVAB. This period is characterized by poor air movement in the mornings with the arrival of the Delta Sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide a plentiful amount of sunlight to fuel photochemical reactions between reactive organic gases (ROG) and oxides of nitrogen (NO_x), which result in ozone formation. Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, a phenomenon known as the Schultz Eddy prevents this from occurring during approximately half of the time from July to September. The Schultz Eddy phenomenon causes the wind to shift southward and blow air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutant emissions in the area and contributes to the area violating the ambient-air quality standards.

The local meteorology of the project area and surrounding area is represented by measurements recorded at the Western Regional Climate Center Rocklin station. The normal annual precipitation is approximately 23 inches. January temperatures range from a normal minimum of 35°F to a normal maximum of 54°F. July temperatures range from a normal minimum of 58°F to a normal maximum of 97°F (WRCC 2025). The predominant wind direction is from the south (WRCC 2025).

TOXIC AIR CONTAMINANTS

According to the *California Almanac of Emissions and Air Quality* (CARB 2013), most of the estimated health risks from toxic air contaminants (TACs) can be attributed to relatively few compounds, the most important being diesel PM. Diesel respirable particulate matter (PM) differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. Unlike the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, the California Air Resources Board (CARB) has made preliminary concentration estimates based on a PM exposure method. This method uses the CARB emissions inventory's PM₁₀ database, ambient PM₁₀ monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene. Overall, levels of most TACs, except para-dichlorobenzene and formaldehyde, have decreased since 1990 (CARB 2013).

ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person may be perfectly acceptable to

another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity. Uses typically associated with the generation of nuisance odors include wastewater treatment plants, chemical manufacturing facilities, sanitary landfills, fiberglass manufacturing facilities, transfer stations, painting/coating operations (e.g., auto body shop), composting facilities, food processing plants, petroleum refineries, rendering plants, asphalt batch plants, and coffee roasters.

PLACER COUNTY AIR POLLUTION CONTROL DISTRICT

The project area lies within the Placer County portion of the SVAB, which is under the jurisdiction of the Placer County Air Pollution Control District (PCAPCD). PCAPCD includes portions of three different air basins (i.e., Sacramento Valley, Mountain, and the Lake Tahoe Air Basins). PCAPCD is primarily responsible for developing and implementing rules and regulations for attainment of National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), developing air quality management plans, permitting new or modified sources, and adopting and enforcing air pollution regulations within the Basin. The ability of PCAPCD to control emissions (including criteria pollutants, TACs, and greenhouse gas emissions [GHGs]) is provided primarily through permitting, but also through its role as a CEQA lead, responsible, or commenting agency, the establishment of CEQA thresholds, and the development of analytical requirements and guidance for CEQA documents.

Criteria Air Pollutants

PCAPCD attains and maintains air quality conditions in Placer County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of PCAPCD includes the preparation of plans and programs for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. PCAPCD also inspects stationary sources, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements other programs and regulations required by the Clean Air Act (CAA), CAA Amendments, and California CAA (CCAA).

All projects are subject to adopted PCAPCD rules and regulations in effect at the time of construction. Specific rules applicable to the project may include but are not limited to the following:

- ▶ **PCAPCD Rule 202 Visible Emissions.** Requires that opacity emissions from any emission source not exceed 20% for more than 3 minutes in any one hour.
- ▶ **PCAPCD Rule 205 Nuisance.** A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause to have a natural tendency to cause injury or damage to business or property.
- ▶ **PCAPCD Rule 207 Particulate Matter:**
 - A. For the Sacramento Valley Air Basin and the Mountain Counties Air Basin portions of the Placer County Air Pollution Control District a person shall not release or discharge into the atmosphere from any source or single processing unit, exclusive of sources emitting combustion contaminants only, particulate matter emissions in excess of 0.1 grains per cubic foot of gas at District standard conditions.
- ▶ **PCAPCD Rule 210 Specific Contaminants**
 - A. A person shall not discharge into the atmosphere from any source of emissions whatsoever, any one or more of the following contaminants, in any state or combination, therefore exceeding in concentration at point of discharge:
 1. Sulfur compounds, calculated as sulfur dioxide (SO₂):

- a. 0.2 percent by volume for the Sacramento Valley and Mountain Counties Air Basin portions of the Placer County Air Pollution Control District.
2. Combustion Contaminants: Wood fired boilers and incinerators in the Sacramento Valley and Mountain Counties Air Basin portions of the Placer County Air Pollution Control District: 0.2 grains per cubic foot of gas calculated to 12 percent carbon dioxide (CO₂) at standard conditions.

► **PCAPCD Rule 217 Cutback and Emulsified Asphalt Paving Materials:**

- 1.1.1 A person shall not discharge to the atmosphere volatile organic compounds (VOCs) caused by the use or manufacture of Cutback or Emulsified asphalts for paving, road construction, or road maintenance, unless such manufacture or use complies with the provisions of this Rule.

► **PCAPCD Rule 218 Application of Architectural Coatings:** To limit the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.

► **PCAPCD Rule 228 Fugitive Dust:**

- Visible emissions are not allowed beyond the project boundary line.
- Visible emissions may not have opacity of greater than 40% at any time.
- Track-out must be minimized from paved public roadways.

► **PCAPCD Rule 242 Stationary Internal Combustion Engines:**

- To limit the emission of nitrogen oxides (NO_x) and carbon monoxide (CO) from stationary internal combustion engines.

Toxic Air Contaminants

At the local level, PCAPCD may adopt and enforce CARB's airborne toxic control measures or adopt its own, equally stringent, measures. Under PCAPCD Rule 501 ("Permit Requirements"), PCAPCD Rule 502 ("New Source Review"), and PCAPCD Rule 507 ("Federal Operating Permit"), all sources that possess the potential to emit TACs are required to obtain permits from PCAPCD. PCAPCD may grant permits to these operations if they are constructed and operated in accordance with applicable regulations, including new source review standards and air toxics control measures. PCAPCD limits emissions and public exposure to TACs through a number of programs.

Sources that require a permit are analyzed by PCAPCD (e.g., health risk assessment) based on their potential to emit TACs that would expose receptors to substantial health risks. If it is determined that the project would emit TACs in excess of PCAPCD's standard of significance for TACs (identified below), then the source would have to implement BACT for TACs to reduce emissions. If a source cannot reduce the risk below the threshold of significance even after the BACT has been implemented, PCAPCD will deny the permit required by the source. This helps to prevent new problems and reduces emissions from existing older sources by requiring them to apply new TAC-reduction technology when being retrofitted.

METHODOLOGY

Regional and local criteria air pollutant emissions and associated impacts, as well as impacts from TACs and odors, were assessed in accordance with PCAPCD-recommended methodologies. CO concentrations were not assessed in the analysis because Placer County is in attainment status for CO. The project's estimated emissions were compared to PCAPCD-adopted thresholds as described in the following section.

Construction emissions of criteria air pollutants and precursors were calculated using the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.37 computer program, as recommended by PCAPCD (PCAPCD 2017). Modeling was based on project-specific information (e.g., size of the building and duration of construction) where available. Reasonable assumptions for pieces and hours of construction equipment used based on typical construction activities and default values in CalEEMod that are based on the project's location and land use type.

The project would construct a 17,000 square foot (SF) generator electrical building and install 1,700 feet of new utility line. Construction of the project would take approximately 3 years beginning in summer of 2027. Based on the width of Westpark Drive (approximately 35 feet), 59,500 SF, or 1.4 acres will be paved during utility installation. Construction equipment procurement would begin in the summer of 2027 and last until April 2028. Construction activities would last approximately 18 months, beginning in April 2028 and commencing in October 2029. Startup and Commissioning would occur from October 2029 to May 2030. Ten one-way haul trips were included in the construction phase to account for the diesel tank deliveries. For specific modeling parameters, see Appendix A.

Implementation of the project would not increase daily worker trips to and from the project area, as implementation of the project would not increase employment at the WWPT. However, project implementation would replace the two existing Tier 2 1,825 kilowatt (kW) standby generators with a combined capacity of 3,640 kW and replace them with two Tier 2 engine 2,500 kW standby generators with a combined capacity of 5,000 kW. Existing conditions and future operations of the generators were calculated using CARB emission factors for Tier 2 off-road diesel generators (CARB 2020). In compliance with PCAPCD Rule 502, the generators were modeled to run for no more than 100 hours per year.

The project would also include bulk diesel fuel storage with a dedicated 15,000-gallon, double-walled steel storage tank for each generator. Emissions associated with diesel tank loading, storing, dispensing and refueling of generators would be minimal and were not quantified.

3.3.2 Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less-than-significant impact. The emission inventories used to develop a region's air quality attainment plans such as the *2018 Sacramento Regional 2015 8-Hour Ozone Attainment and Reasonably Further Progress Plan* and the 2025 metropolitan transportation plan/sustainable communities strategy (MTP/SCS). The emission inventories used to develop applicable air quality plans are based primarily on land use growth patterns, enforcing limits in emissions through best available control technology (BACT) requirements, and enforcing other existing PCAPCD rules. Therefore, projects that would result in increases in population or employment growth beyond that projected in regional or community plans could result in increases in vehicle miles travelled (VMT) above that planned in the air quality plans, further resulting in mobile-source emissions that could conflict with a region's air quality planning efforts. Also, stationary-source projects that are inconsistent with PCAPCD technology requirements and rules could also conflict with the emission reduction goals in the federal and state attainment plans.

The project would not result in an increase in population or employment and thus would not conflict with any applicable air quality plans such as the *2018 Sacramento Regional 2015 8-Hour Ozone Attainment and Reasonably Further Progress Plan* or the MTP/SCS.

Instead, the project would serve the existing and future electrical demand for the PGWWTP. As discussed in Chapter 2, "Project Description," the Project would construct a new electrical building and install a new electrical feed. Additionally, the project would replace the two existing Tier 2 1,825 kW standby generators with a combined capacity of 3,640 kW with two 2,500 kW Tier 2 standby generators with a combined capacity of 5,000 kW. The project would be subject to all PCAPCD rules pertaining to new stationary sources, including Rule 250, 401, 501, and 502, which are aimed at maintaining or achieving attainment of the NAAQS in the SVAB. Therefore, the project would not conflict with or obstruct implementation of applicable air quality plans, and this impact would be less than significant. No mitigation is required.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less-than-significant impact. Construction of the project would result in emissions of ROG, NO_x, and particulate matter from the use of heavy-duty construction equipment, travel on unpaved surfaces, and earth movement for site

preparation and grading activities. Maximum daily construction emissions for each year of project construction are presented in Table 3.3-1 below.

Table 3.3-1 Maximum Daily Emissions of Criteria Air Pollutants and Precursors Emissions Associated with Project Construction

Construction Year	ROG (lb/day) Emissions	NO _x (lb/day) Emissions	PM ₁₀ (lb/day) Emissions
2028	4	34	4
2029	7	32	3
Maximum Daily Emissions	7	34	4
PCAPCD Thresholds of Significance	82	82	82
Threshold Exceeded	No	No	No

Notes: ROG = reactive organic gas; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter; lb/day = pounds per day; PCAPCD = Placer County Air Pollution Control District.

Source: Modeling conducted by Ascent in 2026.

Project implementation would involve replacing the two existing Tier 2 1,825 kW standby generators with two Tier 2 engine 2,500 kW standby generators. The project would not result in an increase in employees commuting to the project area. Table 3.3-2 below shows the operational emissions from the existing generators and the proposed generators.

Table 3.3-2 Maximum Daily Emissions of Criteria Air Pollutants and Precursors Emissions Associated with Project Operations

Construction Year	ROG (lb/day) Emissions	NO _x (lb/day) Emissions	PM ₁₀ (lb/day) Emissions
Existing Generators	10	6	<1
Proposed Generators	14	7	<1
Net Change	+4	+1	0
PCAPCD Thresholds of Significance	82	82	82
Threshold Exceeded	No	No	No

Notes: ROG = reactive organic gas; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter; lb/day = pounds per day; PCAPCD = Placer County Air Pollution Control District.

Source: Modeling conducted by Ascent in 2026.

According to PCAPCD guidance, projects with daily emissions that exceed the thresholds of 82 lb/day for PM₁₀, NO_x, or ROG would have a significant impact on air quality. Project construction nor operations would generate emissions that exceed the established maximum daily threshold for PM₁₀, NO_x, or ROG (i.e., 82 lb/day) for any aspect of the project, as shown in Tables 3.3-1 and 3.3-2. Because PCAPCD thresholds of significance are directly tied to attaining the NAAQS, projects that do not exceed these thresholds would not be considered to contribute to adverse health effects. For these reasons, construction emissions from the project would not result in negative health outcomes and would be less than significant. No mitigation is required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less-than-significant impact. Several residences are located near the project area. The nearest sensitive receptor West Park High School located approximately 850 feet east of the nearest project element. The exposure of these nearby sensitive receptors to substantial air pollutant concentrations during construction and operation of the project.

Construction-related activities associated with the project would result in temporary, short-term emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment used during project construction activities such as site clearing, grading, excavation, and other miscellaneous activities. On-road, diesel-powered haul trucks traveling to and from the project area during construction to deliver materials and equipment are less of a concern because they do not operate at a single location for extended periods and therefore would not expose a single receptor to excessive

diesel PM emissions. This analysis focuses primarily on heavy duty construction equipment used on-site that may affect nearby off-site land uses.

Diesel PM was identified as a TAC by CARB in 1998. The potential cancer risk from inhaling diesel PM outweighs the potential for all other diesel PM-related health impacts (i.e., noncancer chronic risk, short-term acute risk). Chronic and acute exposure to noncarcinogens is expressed as a hazard index, which is the ratio of expected exposure levels to an acceptable reference exposure level. As shown in Tables 3.3-1 and 3.3-2 above, maximum daily PM₁₀ emissions, which is considered a surrogate for diesel PM, could reach a maximum of 4 lb/day during construction and less than 1 lb/day during operations. Additionally, the majority of total construction PM₁₀ emissions would be from dust, meaning that the concentration of exhaust PM₁₀ is much less than 4 lb/day. Specifically, maximum daily construction exhaust PM₁₀ emissions related to construction of the project would be approximately 1 lb/day and construction would last only 18 months.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC levels that exceed applicable standards). Dose is a function of the concentration of a substance in the environment and the duration of exposure to the substance. It is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if the exposure occurs over a longer period. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TACs, should be based on a 70- or 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015: 5-23, 5-24). For this reason, it is important to consider that the use of heavy-duty off-road diesel equipment would be limited to an 18-month period, with the most emissions-intensive construction activities (i.e., earthmoving and grading activities) occurring within an approximately 1-month time frame.

In addition, studies show that diesel PM is highly dispersive and that concentrations of diesel PM decline with distance from the source (e.g., 500 feet from a freeway, the concentration of diesel PM decreases by 70 percent) (Roorda-Knappe et al. 1999; Zhu et al. 2002, cited in CARB 2005: 9).

The nearest off-site receptor to the project is West Park High School, approximately 850 feet east of the nearest project element. This distance would result in an even greater reduction in TAC concentration than the 70 percent reduction identified at 500 feet from a TAC source. Thus, exposure to TAC emissions would be negligible considering the limited construction duration (i.e., 18 months), relatively low exhaust PM₁₀ emissions (i.e., approximately 1 lb/day during construction and less than 1 lb/day during operations), and distance to the nearest receptor. Therefore, TACs would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in 1 million or a hazard index of 1.0 or greater. This impact would be less than significant, and no mitigation is required.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-than-significant impact. The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the affected receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generate citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose a substantial number of people to objectionable odors would be deemed to have a significant impact.

The predominant source of power for construction equipment would be diesel engines. Exhaust odors from diesel engines, as well as emissions associated with paving and the application of architectural coatings may be considered offensive to some individuals. The generation of these odor emissions would vary greatly on a day-to-day basis depending on the type of construction activities. Application of architectural coatings would also be a source of offensive odors from VOCs. However, because the application of architectural coatings would be required to comply with PCAPCD Rule 218 (Architectural Coatings) which requires volatile organic compound limits on coatings used, potential construction odors would be minimized. Minor odors from the use of heavy-duty diesel equipment would

be intermittent and temporary and would dissipate rapidly from the source with an increase in distance. The nearest off-site receptor to the project is West Park High School, approximately 850 feet east of the nearest project element. Given the temporary nature of construction activities and the distance of the sensitive receptors from the project area, project construction is not anticipated to result in a significant odor-related impact.

PCAPCD identifies land uses typically associated with potential odor impacts including wastewater treatment plants, sanitary landfills, composting/green waste facilities, recycling facilities, chemical manufacturing plants, painting/coating operations, agricultural operations, and slaughterhouse/food packaging plants (PCAPCD 2017: 63-64). Implementation of the project would not create additional worker trips to and from the project area but would involve replacing the two existing 1,825 kW standby generators with two 2,500 kW standby generators. The two new generators would only be for emergency use and would not generate odors that adversely affect a substantial number of people as generators are not identified as a typical odor source. Thus, project implementation would not introduce a new odor source and would not result in odors affecting a substantial number of people and this impact would be less than significant. No mitigation is required.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources.				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.4.1 Environmental Setting

The facilities proposed for the electrical expansion project would be located within the existing PGWWTP fence-line boundary and immediately south of the existing PGWWTP boundary. Lands within the PGWWTP boundary are developed with WWTP facilities, paved areas, or other disturbed areas. The area immediately south of the PGWWTP and east of the Energy Recovery Facilities where the new electrical building is proposed has previously been graded and maintained in "development ready" condition through regular disking. This area may require additional grading in the future to address uneven surfaces that are the result of weather-related disturbances and geotechnical studies that deposited debris in the project area. The project area is surrounded by a combination of industrial, residential, open space, and park and recreational designated land. The overall project vicinity is moderately developed.

A reconnaissance-level pedestrian survey of the project area was conducted by an Ascent biologist on August 28, 2025, to assess the existing conditions and evaluate the potential for occurrence of sensitive biological resources, including special-status plant and wildlife species and sensitive natural communities. Common vegetation and wildlife species observed were recorded and habitat types were assessed according to the California Wildlife Habitat Relationships (CWHR) classification system (Mayer and Laudenslayer 1988).

The project area consists entirely of previously disturbed habitat best described as urban habitat according to CWHR. Vegetation is relatively sparse due to regular disking and contains a mix of native and nonnative grasses and forbs. The topography ranges in elevation from approximately 95 to 100 feet above mean sea level. Herbaceous species observed on the project area include wild oat (*Avena* sp.), Medusa head (*Elymus caput-medusae*), Italian rye grass (*Festuca perennis*), Italian thistle (*Carduus pynoccephalus*), prickly lettuce (*Lactuca serriola*), spikeweed (*Centromadia fitchii*), stinkwort (*Dittrichia graveolens*), and narrow tarplant (*Holocarpha virgata*). Woody species observed on the project area include one valley oak (*Quercus lobata*), western redbud (*Cercis occidentalis*), crape myrtle (*Lagerstroemia indica*), strawberry tree (*Arbutus unedo*), Chinese hackberry (*Celtis sinensis*), and ornamental shrubs. The woody vegetation on-site is largely restricted to a row of primarily ornamental trees planted as landscaping immediately north of the site for the proposed electrical building along the southern access road. This row of trees is proposed for removal to allow for the new underground 12 kV utility feed. One valley oak is present within this row. There is also a row of redwoods along the property border to the south of the project area.

Common wildlife species observed during the August 2025 survey include coyote (*Canis latrans*), jack rabbit (*Lepus californicus*), California vole (*Microtus californicus*), honeybee (*Apis mellifera*), northern mockingbird (*Mimus polyglottos*), Eurasian collared dove (*Streptopelia decaocto*), killdeer (*Charadrius vociferus*), American kestrel (*Falco sparverius*), Anna's hummingbird (*Calypte anna*), and black phoebe (*Sayornis nigricans*). Ground squirrel (*Otospermophilus beecheyi*) burrows were observed in the vicinity, but outside of the project area during the survey.

SPECIAL-STATUS SPECIES

Special-status species are defined as species that are legally protected or that are otherwise considered sensitive by federal, state, or local resource agencies. Special-status species are species, subspecies, or varieties in one or more of the following categories, regardless of their legal or protection status:

- ▶ officially listed by the federal government under the Endangered Species Act (ESA) as endangered or threatened;
- ▶ officially listed by the State of California under the California Endangered Species Act (CESA) as endangered, threatened, or rare;
- ▶ a candidate for state or federal listing;
- ▶ taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in CCR Section 15380 of the State CEQA Guidelines;
- ▶ species identified by CDFW as species of special concern;
- ▶ species listed as fully protected under the California Fish and Game Code;
- ▶ species afforded protection under local planning documents; and
- ▶ taxa considered by CDFW to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR) of 1A, 1B, 2A or 2B.

Prior to the field survey, information on sensitive biological resources previously recorded in the project vicinity was collected through a search of the following databases:

- ▶ California Natural Diversity Database (CNDDDB) records search of the Citrus Heights, Roseville, Lincoln, Taylor Monument, Rio Linda, Pleasant Grove, Verona, Nicolaus, and Sheridan US Geological Survey (USGS) 7.5-minute quadrangles (CNDDDB 2025);

- ▶ California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants records search of the Citrus Heights, Roseville, Lincoln, Taylor Monument, Rio Linda, Pleasant Grove, Verona, Nicolaus, and Sheridan USGS 7.5-minute quadrangles (CNPS 2025); and
- ▶ US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) list of species that may be affected by activities implemented at the project area (USFWS 2025a).

Eleven special-status plant species have been documented in the CNDDDB and CNPS Inventory nine-quadrangle search area. The potential for each of these species to occur in the project area was evaluated based on specific habitat requirements, geographic distribution, and elevation range. These species are associated with chaparral, annual grassland, vernal pool, or riparian habitat that are not present in the project area or have geographic ranges that do not include the project area. No special-status plant surveys have been conducted in the area, but the entire project area has been altered by human activities and is subject to ongoing vegetation management and surface soil manipulation by disking to maintain the area in a “development ready” condition. This precludes the establishment of natural plant communities in the project area. Therefore, no habitats suitable for special-status plants are present and the following special-status plant species were removed from further consideration:

- | | |
|-----------------------------|----------------------------|
| ▶ Ahart’s dwarf rush, | ▶ Pincushion navarretia, |
| ▶ Big-scale balsamroot, | ▶ Red Bluff dwarf rush, |
| ▶ Bogg’s Lake hedge-hyssop, | ▶ Sanford’s arrowhead, |
| ▶ Dwarf downingia, | ▶ Spicate calycadenia, and |
| ▶ Hispid salty bird’s-beak, | ▶ Woolly rose-mallow. |
| ▶ Legenere, | |

There are 52 special-status wildlife species that are known to occur within the CNDDDB nine-quadrangle search area. Of the 52 species, 45 were eliminated from further analysis because these species are associated with coniferous forest, shrubland, meadow, dense grassland, riparian, vernal pool, aquatic, riverine, marsh, or delta habitats, which are not present in the project area. The remaining seven species are Crotch’s bumble bee, monarch, western spadefoot, burrowing owl, Swainson’s hawk, loggerhead shrike, and white-tailed kite. Special-status wildlife species removed from further consideration include:

- | | | |
|---|-----------------------------|--|
| ▶ American badger, | ▶ Delta smelt, | ▶ redhead, |
| ▶ American peregrine falcon, | ▶ giant gartersnake, | ▶ rifle sculpin, |
| ▶ American white pelican, | ▶ golden eagle, | ▶ ringtail, |
| ▶ bald eagle, | ▶ grasshopper sparrow, | ▶ Sacramento hitch, |
| ▶ bank swallow, | ▶ green sturgeon, | ▶ Sacramento splittail, |
| ▶ black tern, | ▶ hardhead, | ▶ song sparrow (“Modesto” population), |
| ▶ California black rail, | ▶ long-eared owl, | ▶ steelhead – Central Valley DPS |
| ▶ Chinook salmon – Central Valley fall/late fall-run ESU, | ▶ longfin smelt | ▶ tricolored blackbird, |
| ▶ Chinook salmon – Central Valley spring-run ESU, | ▶ northern harrier, | ▶ valley elderberry longhorn beetle, |
| ▶ Chinook salmon – Sacramento River winter-run ESU, | ▶ northwestern pond turtle, | ▶ Vaux’s swift, |
| ▶ coast horned lizard, | ▶ olive-sided flycatcher, | ▶ vernal pool fairy shrimp, |
| ▶ conservancy fairy shrimp, | ▶ Pacific lamprey, | ▶ vernal pool tadpole shrimp, |
| | ▶ pallid bat, | ▶ western red bat, |
| | ▶ purple martin, | |

- ▶ western river lamprey,
- ▶ willow flycatcher,
- ▶ Yellow-breasted chat, and
- ▶ western yellow-billed cuckoo,
- ▶ yellow warbler,
- ▶ Yellow-headed blackbird.

Table 3.4-1 Potential for Sensitive Species to Occur in the Project Area

Common Name and Scientific Name	Federal Status ¹	State Status ¹	Potential to Occur within the Project Area
Invertebrates			
Crotch's bumble bee <i>Bombus crotchii</i>	None	SC	May occur. The project area is within the current known range of this species. The project area includes flowering plants that may provide foraging habitat for Crotch's bumble bee. Grassland and small mammal burrows in the project vicinity may provide suitable nesting habitat areas for Crotch's bumble bee.
Monarch <i>Danaus plexippus</i>	PT	None	May occur. The project area is within the current known range of this species. The project area contains flowering plants that may provide foraging habitat. No milkweed plants were observed in the project area during the reconnaissance-level survey on August 28, 2025, and it is unlikely that breeding occurs on-site.
Amphibians			
Western spadefoot <i>Spea hammondi</i>	PT	SSC	May occur. Although the project area does not contain vernal pool habitat suitable for this species, there are known occurrences nearby within dispersal distance from the project area.
Birds			
Burrowing owl <i>Athene cunicularia</i>	None	SC, SSC	May occur. No ground squirrel burrows or other burrows suitable for burrowing owl were observed within the project area; however, ground squirrel burrows are present just beyond the project area within close enough proximity to be adversely affected by project construction activities. The closest known CNDDB occurrence is 0.35 miles southwest of the project area.
Swainson's hawk <i>Buteo swainsoni</i>	None	Threatened	May occur. Trees south of the project area may provide nesting habitat suitable for Swainson's hawk. Nesting habitat is present along Pleasant Grove Creek, approximately 0.75 miles to the north. Disturbed habitat within the project area may provide limited foraging habitat for Swainson's hawk. There are five known CNDDB occurrences within 2.5 miles of the project area.
White-tailed kite <i>Elanus leucurus</i>	None	FP	May occur. Trees south of the project area may provide nesting habitat suitable for white-tailed kite. Disturbed habitat within the project area provides limited foraging habitat for white-tailed kite.
Loggerhead shrike <i>Lanius ludovicianus</i>	None	SSC	May occur. The project area contains foraging habitat for this species. In addition, trees and shrubs on the project area could provide habitat suitable for nesting by this species.

STATE OR FEDERALLY PROTECTED WETLANDS

Prior to the field survey, information on wetlands and other aquatic resources previously recorded in the project vicinity was collected through a search of the following databases:

- ▶ USFWS National Wetlands Inventory mapping (USFWS 2025b); and
- ▶ Aerial photographs of the project area and vicinity.

No seasonal wetlands, vernal pools, or other aquatic habitats that could qualify as state or federally protected wetlands were observed in the project area during reconnaissance survey.

REGULATORY HISTORY

Development of the entire project area (including the existing PGWWTP and Energy Recovery Project area) and fill of wetlands and waters of the United States on-site were previously authorized by US Army Corps of Engineers (USACE) Section 404 federal Clean Water Act (CWA) permits. Development and fill of wetlands and waters of the United States along the "fence line" boundary of the existing PGWWTP was covered under a Nationwide Permit 26 authorization letter (No. 199800481) issued on December 4, 1998, for construction of the existing PGWWTP. Mitigation credits were purchased to compensate for impacts on jurisdictional waters. Consultation under Section 7 of the ESA for vernal pool fairy shrimp and vernal pool tadpole shrimp and their critical habitat was also conducted in support of this Nationwide Permit. USFWS issued a Biological Opinion (BO) and exemption for incidental take for direct and indirect effects to listed species on May 25, 1999. All conservation measures and Reasonable and Prudent Measures (RPMs) from the BO were implemented, including the purchase of vernal pool creation and preservation credits in 1999 and consultation with USFWS for Phase II of the PGWWTP.

Development and fill of wetlands and waters of the United States within the area immediately south of the PGWWTP, including the Energy Recovery Project area and the project area, was covered under the Section 404 CWA individual permit for the *West Roseville Specific Plan*. The Section 404 individual permit (SPK-2002-00666) was issued for the *West Roseville Specific Plan* on October 21, 2004. An extension of this permit was issued on December 30, 2015, to allow additional time to complete the work covered under the permit. Impacts to jurisdictional waters have been mitigated through on-site mitigation within the *West Roseville Specific Plan* area and purchase of mitigation credits. Section 7 consultation for vernal pool fairy shrimp and vernal pool tadpole shrimp and their critical habitat was also conducted in support of the *West Roseville Specific Plan* Section 404 permit. USFWS issued a BO for this Specific Plan, including the project area, on March 10, 2005. The BO concluded that this take was not likely to result in jeopardy of these species. The conservation measures from the BO were implemented and vernal pool creation and preservation credits were purchased in 2015. The BO included the RPMs to minimize direct and indirect impacts where vernal pool habitats could be avoided or preserved within the larger *West Roseville Specific Plan Area*. The RPMs from the BO do not apply to proposed project because vernal pool and seasonal wetland habitats that previously existed have been filled under prior issued permits and approvals.

3.4.2 Discussion

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

Less than significant with mitigation.

Western Spadefoot

While the project area does not contain vernal pool habitat suitable for this species, open space in the project vicinity contains aquatic habitat and there are known occurrences nearby within dispersal distance from the project area. Western spadefoot aestivates in upland habitats outside of the breeding season. Therefore, project-related construction could result in direct mortality of individuals of this species if they are present in the project area during project activities. The project area is within the planning area for the *West Roseville Specific Plan* and all impacts to wetlands, including loss of western spadefoot habitat, have been evaluated and mitigated for in the EIR for the *West Roseville Specific Plan* (City of Roseville 2004). This impact would be potentially significant.

Mitigation Measure 3.4-1 (Implement West Roseville Specific Plan EIR Mitigation Measure 4.7-4 Relocate Individual Western Spadefoots and supplemental measures)

- ▶ Within 48 hours prior to project implementation, a qualified biologist will conduct focused surveys in upland habitats suitable for the species. Burrows considered potentially suitable for western spadefoot toads shall be identified and further examined by a qualified biologist (e.g., with a burrow scope, through hand excavation) to determine whether an adult toad is present in the burrow.
- ▶ If western spadefoots are not found, the qualified biologist will submit a report to the City of Roseville summarizing the results of the survey, and further mitigation will not be required.
- ▶ If western spadefoot toads are detected during focused surveys, adults, tadpoles, or egg masses will be relocated to nearby suitable habitat by a qualified biologist with a valid CDFW scientific collecting permit.

The capture and relocation of reptile and amphibian species from areas that will be destroyed to areas of unoccupied habitat is known to be successful in preserving displaced populations. This measure would mandate that to the extent feasible, western spadefoots found in the project area would be relocated to protected areas of suitable habitat, thereby reducing impacts on western spadefoot to less-than-significant levels.

Crotch's Bumble Bee

Crotch's bumble bee was designated as a candidate for listing as endangered under CESA by the California Fish and Game Commission on June 12, 2019. On November 13, 2020, the Superior Court of Sacramento ruled that insects are not eligible for listing under CESA and vacated the candidacy of bumble bee species. CDFW appealed this decision, and on May 31, 2022, the Third District Court of Appeal in Sacramento ruled that insects are eligible for listing under CESA, and the candidacy of Crotch's bumble bee has been reinstated. Crotch's bumble bee has recently undergone a decline in abundance and distribution and is no longer present across much of its historic range. In California, Crotch's bumble bee populations are currently largely restricted to the Central Valley and adjacent foothills (Williams et al. 2014; Xerces 2018).

Although the life history characteristics of Crotch's bumble bees are not well understood, bumble bees have three basic habitat requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for queens. Bumble bees in general can fly up to approximately 6 miles from the nest while foraging; however, most foraging activity is likely conducted much closer to the nest (Williams et al. 2014).

Within the project area, disturbed habitat supports a variety of native and nonnative grasses and forbs; however, vegetation and floral resources are sparse on-site because of ongoing maintenance. Because bumble bees are generalists, both native and nonnative flowering plants in the project area provide limited foraging opportunities for Crotch's bumble bee. In addition, the project vicinity contains rodent burrows, dirt mounds, and clumps of dead grass that may provide nesting habitat for Crotch's bumble bee. Valley grassland areas exist in surrounding areas and may provide foraging and nesting habitat for Crotch's bumble bee.

The developed areas within the PGWWTP contain buildings and other infrastructure. These developed areas do not contain natural habitat, and therefore do not provide foraging, nesting, or overwintering habitat for Crotch's bumble bee.

Crotch's bumble bee is generally believed to overwinter near the ground surface in loose soil or under leaf litter or other debris (e.g., thatch and bunch grasses). Crotch's bumble bee nests typically occur in abandoned rodent burrows or other animal nests. Nesting and overwintering habitat potentially suitable for this species may be present in the project vicinity but are not present within the project area. Vegetation removal and ground-disturbing activities could result in mortality of Crotch's bumble bees while foraging.

Although project implementation could result in loss of individual Crotch's bumble bees and loss of foraging and breeding habitat for the species, it is unlikely that the project area would support a high concentration of bumble bee colonies due to the limited amount of habitat available on-site and the lack of documented occurrences nearby; therefore, project implementation is not expected to result in loss of a large number of bumble bees. While loss of individual Crotch's bumble bees or a colony as a result of project activities may not cause the population to drop

below self-sustaining levels, threaten to eliminate the species, or substantially reduce the range of the species, the population status of this species is poorly understood, and loss of a colony could have a substantial effect on the local population. This impact would be potentially significant.

Mitigation Measure 3.4-2 Conduct Focused Surveys for Crotch's Bumble Bee and Implement Avoidance Measures

Before implementation of vegetation removal of ground disturbing activities, the City will implement the following measures:

- ▶ Initial ground-disturbing work will take place between August 15 and March 15, if feasible, to avoid impacts on nesting and foraging Crotch's bumble bees. If this limited operating period is determined to be infeasible, then focused surveys for Crotch's bumble bee will be conducted and avoidance measures will be implemented.
- ▶ The City will retain a qualified biologist familiar with bumble bees of California, and with experience using survey methods for bumble bees, to conduct focused surveys for Crotch's bumble bee following the methods in *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023) before the start of any ground-disturbing activities within 100 feet of potential nesting or overwintering habitat. The surveys will be performed when Crotch's bumble bee is most likely to be identified, which is during the active period, typically from April through August when floral resources and ideal weather conditions are present.
- ▶ If no Crotch's bumble bees are detected during focused surveys, no further mitigation would be required.
- ▶ If Crotch's bumble bees are detected during focused surveys, CDFW will be notified within 24 hours, and appropriate avoidance measures shall be implemented. Avoidance measures may include:
 - Protective buffers will be implemented around active nesting colonies or overwintering queens until these sites are no longer active. A qualified biologist, in coordination with CDFW, will determine the appropriate buffer size to protect nesting colonies or overwintering queens; however, the buffer will be a minimum of 50 feet.

Because Crotch's bumble bee would be avoided or preconstruction surveys and protection measures would be implemented, potential impacts to the species would be reduced to a less-than-significant level.

Monarch

There are no documented occurrences of monarchs on the project area; however, the project area is within the range of this species and floral resources in the project area may provide limited foraging habitat suitable for monarchs. Monarchs may forage on a variety of native and nonnative wildflowers in grassland habitat. Monarchs require milkweed plants to breed, and require coastal pine, cypress, or eucalyptus forest for overwintering. While no overwintering or breeding habitat is present, herbaceous vegetation in the project area provides limited foraging opportunities for migrating monarchs. Project activities, including ground disturbance or vegetation removal, could result in disturbance of monarchs and habitat suitable for the species. Foraging monarch butterflies could be disturbed, injured, or lost during construction activities if present in the project area.

While project implementation could result in loss of individual monarchs and loss of foraging and breeding habitat for the species, the project area is not expected to support large numbers of monarch butterflies due to the lack of milkweed plants, few documented occurrences nearby, and the lack of suitable breeding or overwintering habitat in the vicinity. As a result, project implementation is not expected to substantially reduce the number of monarchs, restrict the range of the species, or cause the population to drop below self-sustaining levels. Further, the project area and associated infrastructure improvements are relatively small compared to natural habitat areas in the project vicinity, and project activities are not expected to result in a significant loss of foraging or breeding habitat for the local and statewide populations of monarchs. Therefore, the project impact on monarchs would be less than significant.

Swainson's Hawk, White-Tailed Kite, Loggerhead Shrike, Burrowing Owl, and Other Native Nesting Birds

The row of trees north of the proposed site of the new electrical building, along the southern access road, includes one valley oak and other trees that provide nest habitat for special-status birds protected under the Migratory Bird Treaty Act or California Fish and Game Code. Project-related construction could disturb birds that may be nesting in

those trees resulting nest abandonment and loss of chicks or eggs or result in the loss of a nest. One raptor nest was observed in the row of redwood trees south of the project area during the August 2025 field survey. However, the redwood trees would not be directly affected during construction.

The project area consists of regularly disturbed habitat that may provide marginal foraging habitat. The loss of this marginal habitat would not substantially reduce the amount of foraging habitat for Swainson's hawk and white-tailed kite in the project vicinity, which includes larger areas of undisturbed, higher quality foraging habitat for these species. In addition, the project area is within the planning area for the *West Roseville Specific Plan* and all grassland impacts, including loss of Swainson's hawk and white-tailed kite foraging habitat, have been evaluated and mitigated in accordance with the requirements of the EIR for the *West Roseville Specific Plan* (City of Roseville 2004).

The project area could provide marginal foraging habitat for burrowing owl but did not provide suitable nesting habitat during the August 2025 field survey. Burrowing owls were not observed on the site during the reconnaissance survey, but if they are nesting or overwintering on or near the project area during construction, ground-disturbing activities could result in nest abandonment and the mortality of individuals, eggs, and chicks. Although the loss of this marginal habitat would not be substantial in relation to the total available foraging habitat in the surrounding area, the loss of burrowing owl nest sites or individuals would be a significant impact.

The project area provides suitable foraging and nesting habitat for loggerhead shrike. This species was not observed during the August 2025 survey, but it is known to occur in the project vicinity. Although the loss of habitat associated with the proposed project would not be substantial in relation to the total available foraging habitat in the surrounding area, the loss of loggerhead shrike active nests with chicks or eggs would be a significant impact.

Mitigation Measure 3.4-3: Conduct Focused Surveys for Special-Status Birds, Nesting Raptors, and Other Native Nesting Birds, and Implement Protective Buffers

To minimize the potential for loss of special-status bird species, raptors, and other native birds (including Swainson's hawk, loggerhead shrike, white-tailed kite, and common native nesting bird species), the City will implement the following measures.

- ▶ **Seasonal Avoidance:** Project activities (e.g., tree removal, vegetation clearing, ground disturbance, staging) will be conducted during the nonbreeding season (approximately September 1-January 31), if feasible. This measure applies to project activities that occur where habitat suitable for nesting is present, as determined by a qualified biologist. Birds may nest on the ground, in bushes, in trees, in structures, and in cavities; therefore, habitat suitable for bird nesting may include portions of the project area that qualify as grassland. During the bird nesting season, birds may build nests in areas that have not experienced ongoing disturbance.
- ▶ **Preconstruction Surveys:** Within 7 days before the onset of project activities during the bird breeding season (approximately February 1 through August 31, as determined by a qualified biologist), a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys will conduct focused surveys for special-status birds, other nesting raptors, and other native birds. Surveys will be conducted in accessible areas within 0.5 miles of the project area for Swainson's hawk, within 500 feet of the project area for other raptor species (white-tailed kite) and special-status birds (loggerhead shrike), and within 100 feet of the project area for non-raptor common native bird nests.
 - Guidelines provided in Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley (Swainson's Hawk Technical Advisory Committee 2000) will be followed for surveys for Swainson's hawk. This protocol includes early season surveys.
 - If work ceases for 14 days during the bird breeding season, a follow-up survey will be conducted prior to reinitiation of construction activities in that area. If work extends into a previously surveyed area that has not undergone ongoing construction disturbance for a period of at least 14 days, a follow up survey will be conducted prior to initiation of construction activities in that area.
 - These surveys may be conducted concurrently with other surveys for other sensitive species.

- All special-status species detected during surveys will be reported to the CNDDDB within 2 weeks of the completion of the survey.
- ▶ **Buffer Zones.** If nesting birds are detected, the following buffer zones will be implemented. A minimum 50-foot-wide buffer will be established between construction activities and the nest location. A minimum 250 feet wide buffer shall be established for Special Management Raptor Species (i.e. common raptors). Buffers will be maintained until the young have fledged the nest and are capable of independent flight. Construction buffers may be reduced from the above-stated distances in accordance with the following requirements:
 - A site-specific analysis prepared by a qualified biologist indicates that the nesting birds would not be adversely affected by construction activities.
 - Monitoring by the qualified biologist is conducted for a sufficient time (minimum of 10 consecutive days following the initiation of construction), and the nesting birds do not exhibit adverse reactions to construction activities (e.g., changes in behavioral patterns, reactions to noise).
 - Regular monitoring is continued through the nesting/wintering cycle at that site, and no change in nesting bird behavior is observed.

If adverse effects are identified, construction activities shall cease immediately, and construction will not be resumed until the qualified biologist has determined that construction may continue under modified restrictions or that nesting activity is complete.

Mitigation Measure 3.4-4: Conduct Take Avoidance Survey for Burrowing Owl, Implement Avoidance Measures, and Compensate for Loss of Occupied Burrows

- ▶ A qualified biologist will conduct a focused survey for burrowing owls in areas of habitat suitable for the species on and within 1,640 feet (500 meters) of the project area no less than 14 days prior to initiating ground disturbance activities using survey methods described in Appendix D of the CDFW Staff Report (CDFW 2012).
- ▶ If no occupied burrows are found, the qualified biologist will submit a report documenting the survey methods and results to the City, and no further mitigation will be required.
- ▶ If an active burrow is found and work is occurring during the nonbreeding season (September 1 through January 31), a qualified biologist will establish and maintain a minimum protection buffer of 164 feet (50 meters) around the occupied burrow throughout construction. The actual buffer size will be determined by the qualified biologist based on the time of year and level of disturbance in accordance with guidance provided in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). The protection buffer may be adjusted if, in consultation with CDFW, a qualified biologist determines that an alternative buffer will not disturb burrowing owl use of the burrow because of particular site features or other buffering measures.
- ▶ If an active burrow is found during the breeding season (February 1 through August 31), occupied burrows will not be disturbed and will be provided with a protective buffer at a minimum of 1,640 feet unless a qualified biologist verifies through noninvasive means that either: (1) the birds have not begun egg laying, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The size of the buffer may be adjusted depending on the time of year and level of disturbance as outlined in the CDFW Staff Report. The size of the buffer may be reduced if a broad-scale, long-term, monitoring program acceptable to CDFW is implemented so that burrowing owls are not adversely affected.
- ▶ Locations of burrowing owls detected during surveys shall be reported to the CNDDDB.
- ▶ If implementation of a buffer to prevent take of burrowing owl is not feasible, the City will consult with CDFW and obtain an Incidental Take Permit prior to commencing project related ground-disturbing activities. The impacts of taking burrowing owl will be minimized and fully mitigated.
- ▶ The City will compensate for the loss of burrowing owl by establishing permanent protection and perpetual management on land that provides burrowing owl habitat. Habitat management lands for burrowing owl may be established by conservation easement or fee title, or credits may be purchased from a CDFW-approved

conservation or mitigation bank. The compensatory mitigation will satisfy permit conditions and all other permit conditions will be implemented.

Significance after Mitigation

With implementation of Mitigation Measures 3.4-1 through 3.4-4, potential impacts on special-status species would be reduced to a less-than-significant level. Project activities would be avoided during the nesting and breeding season for sensitive species whenever possible, and preconstruction surveys and buffers would be implemented prior to construction during the sensitive seasons. Compensatory mitigation will be provided for any unavoidable impacts to special-status species. Therefore, with implementation of these measures, impacts to special-status wildlife species would be reduced to a less-than-significant level.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

No impact. No riparian vegetation or sensitive natural communities occur within the project area. Therefore, the proposed project would not result in adverse effects on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by CDFW or USFWS, and no mitigation is required.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No impact. There are no state or federally protected wetlands in the project area. Furthermore, wetlands that previously existed within the project area have been filled (as permitted) as a result of minor grading and annual maintenance disking. All mitigation credits have been purchased as required by the reissued *West Roseville Specific Plan Section 404 Permit* (December 30, 2015; SPK 2002-00666). Therefore, no impact would occur that would result in a substantial adverse effect on state or federally protected wetlands, and no mitigation is required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No impact. Wildlife corridors are features that provide connections between two or more areas of habitat that would otherwise be isolated and unusable. Often drainages, creeks, or riparian areas are used by wildlife as movement corridors as these features can provide cover and access across a landscape. These habitats are also often used as native wildlife nursery sites in which native wildlife may establish nests, roosts, dens, or engage in breeding or the rearing of offspring. Pleasant Grove Creek located 0.75 miles north of the project area is the nearest wildlife corridor. Development in the project area would not affect Pleasant Grove Creek or biological connectivity between the surrounding annual grassland and Pleasant Grove Creek or otherwise interfere with native resident or migratory fish or wildlife species. Therefore, the proposed project would not impede wildlife movement or the use of native wildlife nursery sites and no impact would occur. No mitigation is required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No impact. Native oak trees in the City of Roseville are protected by the City's Tree Preservation Ordinance (Roseville Municipal Code Chapter 19.66). While there is one protected valley oak tree present and proposed for removal along the southern access road, removal of protected trees performed by public utilities that are necessary to avoid interruptions of services is exempt from permitting requirements. Additional trees proposed for removal are not protected trees under the ordinance.

The project area is part of the Civic and Resource Protection Zone and within the Public/Quasi-Public District applied to land intended for water treatment plants, according to the Zoning Ordinance (Title 19 of the Roseville Municipal

code) for the City of Roseville (City of Roseville 1996). The project would not result in a change to land use or land use designation. Mitigation Measures 3.4-1 through 3.4-4 would reduce any impacts to special-status wildlife species to a less-than-significant level and therefore the proposed project would not conflict with policies that address the conservation of natural resources outlined in the Open Space and Conservation Element of the City General Plan. Therefore, the proposed project would not conflict with any local policies or ordinances protecting trees or biological resources and no impact would occur. No mitigation is required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No impact. The Placer County Conservation Program (PCCP) serves as a Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) for development within the county; however, the City has an existing memorandum of understanding with USFWS and is not a participant in the PCCP. Therefore, there are no HCP/NCCPs that are applicable to the project area and no impact would occur. No mitigation is required.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources.				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Substantially disturb human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

3.5.1 Environmental Setting

On January 13, 2026, a California Historical Resources Information System (CHRIS) records search was conducted at the North Central Information Center (NCIC), California State University, Sacramento (NCIC File No. PLA-26-3). The search covered the project area and a 0.25-mile radius surrounding the project area to identify previously recorded precontact archaeological resources, historic-era archaeological resources, and built-environment historical resources. The records search was also conducted to determine the extent to which the project area has been previously surveyed, and the number and type of cultural resources within a 0.25-mile radius of the project area.

The records search did not identify any previously recorded resource within the project area. The records search also found that four previous cultural resources surveys have been conducted that collectively covered the entire project area.

A pedestrian survey of the project footprint, where ground disturbance is proposed, was conducted on January 26, 2026, for built environment and archaeological features, respectively. The pedestrian survey did not result in the identification of built-environment features or archaeological sites.

3.5.2 Discussion

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No impact. No built environment (historical) resources were identified in the project area as a result of the NCIC record search, background research, or pedestrian survey. Therefore, there would be no impact to historical resources as a result of the project, and no mitigation is required.
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less-than-significant impact with mitigation incorporated. Although the NCIC records searches did not reveal any previously identified archaeological resources, project-related ground-disturbing activities could result in discovery or damage of yet undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. Therefore, this impact would be potentially significant.

Mitigation Measures

Mitigation Measure 3.5-1 Halt Ground Disturbance Up on Discovery of Subsurface Archaeological Features

If archaeological materials (e.g., locally darkened soils [i.e., midden], stone tools, chipped stone, baked clay, or concentrations of shell, bone, charcoal, glass, metal, or ceramics) are inadvertently discovered during ground-disturbing activities, the contractor will cease all work within 100 feet (30.5 meters) of the find and the City will immediately retain the services of a qualified professional archaeologist. At that time, the City will coordinate any necessary investigation of the site with the archaeologist as needed to evaluate the significance of the resource per PRC Sections 5024.1 and 21083.2(g) and provide proper management recommendations. Possible management recommendations for significant resources could include resource avoidance or data recovery excavations. If the qualified archaeologist determines the archaeological material to be Native American in nature, the City will contact the appropriate Native American tribe(s) for their input on the preferred treatment of the find. The City will implement any measures deemed necessary by the archaeologist and/or tribe for the protection of the cultural resources. The archaeologist will instruct the contractor to not resume work in the area of the discovery until directed to do so.

Significance after Mitigation

Implementation of Mitigation Measure 3.5-1 would reduce impacts to archaeological resources by requiring that steps be taken if archaeological resources are encountered during project construction. Therefore, with the implementation of Mitigation Measure 3.5-1, impacts to archaeological resources would be less than significant.

c) **Substantially disturb human remains, including those interred outside of formal cemeteries?**

Less-than-significant impact. Based on the NCIC results and pedestrian survey, no evidence suggests that any precontact or historic era marked or un-marked human interments are present within or in the immediate vicinity of the project area. However, the location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown Native American or other graves could be present within the project area and could be uncovered by project-related construction activities.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains, and discovery of any human remains, are contained in California Health and Safety Code Section 7050.5 and PRC Section 5097.

These statutes require that, if human remains are discovered, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the Placer County Coroner shall be notified immediately. If the remains are determined by the Coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of NAHC shall be adhered to in the treatment and disposition of the remains. Following the Coroner's findings, the NAHC-designated most likely descendants and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94.

Compliance with California Health and Safety Code Section 7050.5 and PRC Section 5097, would provide an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered. Therefore, this impact would be less than significant, and no mitigation is required.

3.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy.				
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

3.6.1 Environmental Setting

ENERGY TYPES AND SOURCES

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. One-third of energy commodities consumed in California are natural gas. In 2024, renewable resources, including hydroelectric power and small-scale solar power, supplied 57 percent of California’s in-state electricity generation; natural gas fueled another 35 percent; and nuclear power provided almost all the rest (EIA 2025).

ALTERNATIVE FUELS

A variety of alternative fuels are used to reduce demand for petroleum-based fuel. The use of these fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, AB 32 Scoping Plan). Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many transportation fuels, including biodiesel/renewable diesel, electricity, ethanol, and hydrogen.

California has a growing number of alternative fuel vehicles through the joint efforts of California Energy Commission (CEC), CARB, local air districts, federal government, transit agencies, utilities, and other public and private entities. As of July 2025, California contained nearly 70,490 stations with alternative fuels (AFDC 2025).

ENERGY USE FOR TRANSPORTATION

In 2024, the transportation sector comprised the largest end-use sector of energy in the state totaling 42 percent, followed by the industrial sector totaling 22 percent, the residential sector at 17 percent, and the commercial sector at 17 percent (EIA 2025). CEC reported retail sales of 163 million gallons of gasoline and 18 million gallons of diesel in Placer County in 2023 (the most recent data available) (CEC 2024).

ENERGY USE AND CLIMATE CHANGE

Scientists and climatologists have produced evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase of the earth’s temperature. For an analysis of GHG production and the project’s impacts on climate change, refer to Section 3.8, “Greenhouse Gas Emissions.”

ELECTRICAL AND NATURAL GAS INFRASTRUCTURE

Roseville Electric provides electrical service to customers within the City limits. Roseville Electric obtains power from a variety of sources. In 2023, Roseville Electric power consisted of 29 percent renewable energy, including solar, wind, hydroelectric, geothermal, and biomass (Roseville Electric 2023). The project includes the construction of electrical upgrades to provide electricity to the PGWWTP including an electrical building and new 12-kv feed. Pacific Gas and Electric Company (PG&E) is the natural gas provider for the City. PG&E underground transmission pipelines are located throughout City rights-of-way to serve existing development.

METHODOLOGY

Neither the law nor the State CEQA Guidelines establish criteria that define wasteful, inefficient, or unnecessary use. Therefore, impacts related to energy are addressed qualitatively.

Construction-related energy consumption was estimated for the project and measured in gallons of gasoline, and gallons of diesel fuel from the use of construction equipment. Energy consumption estimates for construction activities were calculated using the project construction schedule and proposed land use types and the California Emissions Estimator Model (CalEEMod) version 2022.1.1.37 computer program. Where project-specific information was not known, CalEEMod default values based on the project's location were used.

The project would not increase long-term daily worker trips to and from the project area, as implementation of the project would not increase employment at the PGWWTP. Thus, operational energy (i.e., energy consumed by the two existing Tier 2 1,825 kW generators and two new Tier 2 engine 2,500 kW generators) were calculated using CARB emission factors for Tier 2 off-road diesel generators (CARB 2020). In compliance with PCAPCD Rule 502, the generators were modeled to run for no more than 100 hours per year.

3.6.2 Discussion

a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Less-than-significant impact. Energy would be required to construct, operate, and maintain construction equipment and to produce and transport construction materials associated with construction of the project. Project construction would take approximately 3 years beginning in summer of 2027; however, construction activities would occur for 18 months within that 3-year period. The one-time energy expenditure required to construct the new building and infrastructure associated with the project would be nonrecoverable. Most energy consumption would result from operation of construction equipment and vehicle trips associated with commutes by construction workers and haul trucks supplying materials. As detailed in Chapter 2, Project Description, there would be a range of 4 to 20 construction workers on a given day of construction. An estimate of fuel needed for construction activities associated with the project is provided in Table 3.6-1.

Table 3.6-1 Construction Energy Consumption

Fuel Type	Gallons
Diesel	118,218
Gasoline	6,717

Source: Calculations by Ascent in 2026.

Eighteen months of construction would consume a total of 118,218 gallons of diesel and 6,717 gallons of gasoline, as shown in Table 3.6-1. Although construction activities would require fuel and other energy sources, these energy needs would be temporary and would not increase long-term energy or fuel demand. In addition, to maximize their profitability, construction contractors strive to complete construction projects in an efficient manner to meet project

schedules and minimize cost. Thus, only the necessary amount of fuel would be consumed to complete construction of the project. For these reasons, construction activities associated with the project would not result in wasteful, inefficient, or unnecessary energy consumption.

Project implementation would add an approximately 17,000 square foot electrical building and replace the two existing standby generators with two new standby generators. Table 3.6-2 below shows the fuel usage of the existing generators and fuel usage of the proposed generators. While the standby generators would continue to be for emergency use only and the use of the generators is not expected to increase as a result of the project, the new generators would be larger than the existing generators and therefore, use more fuel. Replacing the generators is estimated to result in an increase of 5,550 additional gallons of fuel per year.

Table 3.6-2 Annual Operational Energy Consumption

Source	Gallons (Diesel)
Existing 1,825 kW Generators	15,006
Proposed 2,500 kW Generators	20,556
Net Change	+5,550

Source: Calculations by Ascent in 2026.

Although the project would increase operational fuel usage from replacing the generators, routine maintenance would be similar to or less than existing maintenance and would occur for all new facilities. Maintenance would generally include preventative maintenance, and daily, weekly, monthly, quarterly, and annual inspections. Operation of the project would not require additional employees to operate and maintain the new facilities; therefore, operation of the project would not result in an increase in long-term vehicle trips and would not use energy in a wasteful, inefficient, or unnecessary manner.

Construction activities would be temporary and would not increase long-term energy or fuel demand. In addition, construction activities would only consume the necessary amount of fuel and energy to complete work in an efficient and timely manner. Therefore, this use of energy would not be considered wasteful, inefficient, or unnecessary. For these reasons, the project would not conflict with the goals of conserving energy. This impact would be less than significant, and no mitigation is required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

Less-than-significant impact. As discussed above, the project would not result in the inefficient, wasteful, or unnecessary consumption of energy resources. Furthermore, the two new 2,500 kW generators would be operated in lieu of the two existing 1,825 kW generators that would accommodate emergency operations, thus resulting in a minimal increase in energy demand above existing conditions. However, moving the generators to the 12kV switchgear would eliminate the exceedance of the current rating capacity and would allow for closed transition switching, therefore reducing WWTP disruptions. Thus, project implementation would improve efficiency at the PGWWTP with the reduction in WWTP disruptions, and the project would align with the City of Roseville General Plan 2035's policies AQ1.17, and AQ1.19 by encouraging energy efficiency while promoting energy reliability and capacity. Additionally, maintenance would generally include preventative maintenance, and daily, weekly, monthly, quarterly, and annual inspections that would be similar to or less than existing maintenance. Therefore, the project would not conflict with or obstruct a state or local renewable energy or energy efficiency plan. This impact would be less than significant, and no mitigation is required.

3.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils.				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

3.7.1 Environmental Setting

GEOLOGY

The project area is situated within the eastern margin of the Great Valley geomorphic province of California, near the transition to the Sierra Nevada geomorphic province to the east (CGS 2002). The Great Valley is an alluvial basin comprised of thick alluvial sediments lain atop a Mesozoic sequence of thickly bedded sedimentary rocks. These alluvial sediments were deposited over millions of years through the erosion and redeposition of the Sierra Nevada mountains. Consequently, the geology in the project vicinity is entirely alluvial outwash deposits.

The geology in the project vicinity consists of sedimentary deposits from the coalesced American River – Pleasant Grove Creek alluvial fan. These include, from west to east, the Riverbank, Modesto, Turlock Lake, and Mehrten Formations. The project vicinity and project area are comprised of the Riverbank Formation, and younger, unconsolidated Quaternary alluvium. These stratigraphic units are all generally characterized by nested alluvial fans, grading larger from west to east.

SOILS

Soils in the project area are generally defined by the characteristics present in the alluvial deposits of the Riverbank Formation and other, younger local alluvial deposits in shallow deposits. Soil limitations have been well-characterized in these units, and include slow or variable permeability, low to moderate soil strength, and low to moderate shrink-swell potential associated with sandy loam and clay content. Specific soil units in the project area include:

- ▶ **Cometa-Fiddymment complex (141), 1 to 5 percent slope:** The families that comprise this soil complex, Cometa and Fiddymment, are deep, well-drained, alluvial soils comprised of sandy loam, clay loam, loam, and clay. They occur in alluvial terrace deposits formed from erosion of the weathered granites of the eastern Sierra Nevada. Classified as Hydrologic Group D by the Natural Resource Conservation Service (NRCS), they exhibit a high runoff potential. The Cometa-Fiddymment complex soils do not exhibit episodes of ponding or flooding (NRCS 2026).
- ▶ **Cometa-Ramona sandy loams (142), 1 to 5 percent slope:** The soils that comprise this group are similar to the Cometa-Fiddymment complex, but with a higher proportion of sand and loam relative to clay content. Ramona soils exhibit some gravel deep in the soil horizon (between 55 and 73 inches). Ramona soils have a slightly lower runoff potential and are classified by NRCS in Hydrologic Group C (moderately high runoff potential) (NRCS 2026).
- ▶ **San Joaquin-Cometa sandy loams (182), 1 to 5 percent slope:** San Joaquin soils have a very similar profile and physical characteristics to Cometa soils but are comprised of slightly higher proportions of sand (NRCS 2026).

SEISMICITY

The project area is situated east of the Sierra Nevada foothills, an area of inactive quaternary faulting. Active faults are defined as those having exhibited movement during the Holocene Epoch (less than 11,700 years ago). The nearest faults lie within the Foothills Fault Zone, approximately 16 to 20 miles east of the project area (Table 3.7-1). There are no active faults within the project vicinity.

Table 3.7-1 Faults Near the Project Area

Fault or Fault Zone	Distance from Project Area	Status ¹
Spenceville Fault	16 miles	Late Quaternary (<130,000 years ago)
Deadman Fault	17 miles	Late Quaternary
Maidu East Fault	17 miles	Quaternary (<1.6 million years ago)
Dewitt Fault	18 miles	Late Quaternary
Highway 49 Fault (Foothills Fault System, north central reach section)	18 miles	Late Quaternary
Rescue Fault (Foothills Fault System, north central reach section)	20 miles	Late Quaternary

¹ Only Holocene-age faults are considered potentially active. Only Quaternary and Late Quaternary movements have occurred in the project vicinity.

Source: DOC 2026.

PALEONTOLOGICAL RESOURCES

Significant nonrenewable vertebrate and invertebrate fossils and unique geologic units have been documented throughout California. The fossil yielding potential of a particular area is highly dependent on the geologic age and origin of the underlying rocks. Paleontological potential refers to the likelihood that a rock unit will yield a unique or significant paleontological resource. Pleistocene or older (older than 11,000 years) continental sedimentary deposits are considered as having a high paleontological potential while Holocene-age deposits (less than 10,000 years old) are generally considered to have a low paleontological potential because they are geologically immature and are unlikely to have fossilized the remains of organisms.

The project is located in the Great Valley geomorphic province, where sediment has been deposited almost continually for approximately 160 million years. Subsurface conditions are mapped by the California Geological Survey as Miocene nonmarine sandstone, shale, siltstone, conglomerate, and breccia from Pleistocene-age alluvial sediments of the Middle Unit of the Riverbank Formation. Estimates place the age of the formation between 450,000 and 130,000 years before present. A search of the University of California Museum of Paleontology's (UCMP) database listed 64 paleontological resources in Placer County; however, all resources are located approximately 30 miles northeast of the City of Roseville. The database did not list any paleontological resources from the Riverbank Formation (UCMP 2020).

3.7.2 Discussion

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)**

Less-than-significant impact. The project area is not located in a fault zone, as delineated on an Alquist-Priolo Fault Zoning map. The nearest fault is approximately 16 miles east of the project area, in the Sierra Nevada foothills (DOC 2026). The project would not subject people or structures to adverse effects related to rupture of a known fault because there are no known active faults in the project vicinity (Table 3.7-1). Therefore, this impact would be less than significant, and no mitigation is required.

- ii) **Strong seismic ground shaking?**

Less-than-significant impact. The project area is susceptible to moderate ground shaking ($<0.3g$) associated with a major earthquake on nearby faults, in which slight to moderate damage to ordinary structures and negligible damage to well-designed and constructed structures is possible. The project would be designed and constructed to withstand the effects of moderate ground shaking, in compliance with the California Building Code (CBC). The CBC has adopted a modified version of the International Building Code (IBC) for California conditions with modified and/or more stringent regulations. The CBC contains specific minimum safety and design requirements in Chapter 16, including seismic factors that must be considered in structural design. Chapter 18 of the CBC provides regulations regarding site excavations, foundations, and grading, including requirements for seismically resistant design, foundation investigation, stable cut and fill slopes, and excavation, shoring, and trenching. Because the project would be designed in accordance with the most recent provisions of the CBC, the project's seismic hazard impacts would be less than significant, and no mitigation is required.

- iii) **Seismic-related ground failure, including liquefaction?**

Less-than-significant impact. Liquefaction is possible in the project vicinity in areas of loose, sandy soils with high water content. However, the soils located within the project area are generally well-drained with a high runoff

potential and therefore have a relatively low potential for liquefaction. Additionally, the City General Plan indicates that liquefaction has not been a significant problem in soils within the City limits (City of Roseville 2020a). Appropriate grading and foundation preparation would reduce the potential for liquefaction to a negligible level. Therefore, this impact would be less than significant, and no mitigation is required.

iv) Landslides?

No impact. The project area is located on terraced, flat to gently sloping land (0 to 5 percent slopes), with moderately competent rock and soil types. No steep slopes that are prone to landslides are located on-site or adjacent to the project area. No impact from landslides is anticipated, and no mitigation is required.

b) Result in substantial soil erosion or the loss of topsoil?

Less-than-significant impact. Construction of the project would involve clearing, grading, and paving, as well as construction of a building, storage tanks, and other structures, including concrete slab foundations. Construction of these structures would include moving soil and increasing the overall extent of impervious surfaces in the project area. Under uncontrolled conditions, construction could increase erosion and result in significant topsoil loss.

However, construction activities associated with the project area would require ground disturbance in excess of 1 acre, thereby requiring coverage under the state General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (General Permit). This permit is required under the State Water Resources Control Board (SWRCB) Storm Water Program and is intended to regulate storm water discharges and protect receiving water bodies. A primary objective of the General Permit is to reduce erosion associated with storm water discharges. Implementation of a storm water pollution prevention plan (SWPPP) is required by the permit and must contain measures to limit or prevent erosion. By implementing these measures and adhering to the SWPPP, the potential for erosion and loss of topsoil would be minimized.

In addition, upon completion of construction, all affected areas would be repaved/revegetated and returned to pre-project conditions. The area where soil would be temporarily exposed would be small. Therefore, this impact would be less than significant, and no mitigation is required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less-than-significant impact. Soils within the project vicinity are identified by NRCS with a range of potential engineering constraints but generally tend toward the less hazardous end of the soil spectrum. The soils exhibit low shrink-swell capacity, variable drainage characteristics, and medium soil strength. Shrink-swell activity in soils has the potential to exert force on building and structure foundations and could result in some damage if not adequately addressed during the construction of foundations. Variable permeability could cause issues with site drainage, and medium soil strength characteristics can result in overloading and soil failure.

However, the project would comply with the site-specific geotechnical report prepared for the project to reduce impacts related to soil, including on- or off-site landslides, lateral spreading, subsidence, liquefaction, collapse, or expansive soils (City of Roseville 2026). In addition, the City would ensure the design specifications in the site-specific geotechnical report are incorporated into the project, in accordance with City of Roseville Design and Construction Standards. Engineering and geotechnical investigations, and compliance with CBC regulations and the City of Roseville Design and Construction Standards would limit the extent to which soil characteristics would impact structures. Development would occur pursuant to the City of Roseville building permit process, during which time evaluations of site-specific conditions would take place, and design and construction would be carried out according to results of those evaluations. Therefore, this impact would be less than significant, and no mitigation is required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

Less-than-significant impact. Geotechnical investigations performed for the project indicated that the topsoil is weak and compressible and have a moderate expansion potential (City of Roseville 2026). These surficial soils could result in adverse implications on shallow foundations, including proposed interior and exterior slabs-on-grade. Therefore, it is recommended that the topsoil be removed to a depth of 3 feet below existing grade and 5 feet laterally beyond structural foundation elements and replaced with engineered fill, or on-site fill materials. The actual depth and lateral extent should be verified by the geotechnical engineer at the time of construction.

The project would comply with the CBC and geotechnical recommendations, which includes provisions for construction on unstable and expansive soils. Therefore, expansive soils would be addressed through standardized foundation engineering practices, and the project would be constructed in compliance with applicable CBC regulations and other City and state requirements to address expansive soils. Therefore, this impact would be less than significant, and no mitigation is required.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No impact. Any wastewater generated by the project would be treated on-site at the PGWWTP. The project would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, there would be no impact, and no mitigation is required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less-than-significant impact. Paleontological resources are remains of prehistoric animals and plants that are at least 11,000 years old. As mentioned above, the project vicinity and project area are comprised of the Riverbank Formation, and younger, unconsolidated Quaternary alluvium. This area is considered to be paleontologically sensitive. However, test borings in the project area did not encounter paleontological resources (City of Roseville 2026). In addition, the project would be located in an area that has been previously disturbed by the construction of the existing PGWWTP. Therefore, the project would occur in the vicinity of previously disturbed sediment that is unlikely to contain significant fossil remains. Furthermore, a search of the UCMP database listed 64 paleontological resources in Placer County; however, all resources are located approximately 30 miles northeast of the City of Roseville, in Tahoe National Forest. The database did not list any paleontological resources from the Riverbank Formation (City of Roseville 2020b). For these reasons, the potential of encountering paleontological resources within the project area is considered extremely unlikely. Therefore, impacts on paleontological resources would be less than significant, and no mitigation is required.

3.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII.Greenhouse Gas Emissions.				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.8.1 Environmental Setting

THE PHYSICAL SCIENTIFIC BASIS OF GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Certain gases in the earth’s atmosphere, classified as GHGs, play a critical role in determining the earth’s surface temperature. Solar radiation enters the atmosphere from space. A portion of the radiation is absorbed by the earth’s surface, and a smaller portion of this radiation is reflected toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead “trapped,” resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on Earth.

Human-caused emissions of GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth’s climate, known as global climate change or global warming. It is very likely that human-induced GHG increases were the main driver of tropospheric warming since comprehensive satellite observations started in 1979, and virtually certain that human-induced GHG forcing (i.e., heating effect caused by GHGs in the atmosphere) is the primary driver of the observed changes in hot and cold extremes on the global scale (IPCC 2023).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more carbon dioxide (CO₂) is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remain stored in the atmosphere (Ciais et al. 2013: 467).

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

GREENHOUSE GAS EMISSION SOURCES

The City of Roseville conducted a GHG baseline inventory for the year 2008 as part of the City of Roseville Communitywide Sustainability Action Plan (SAP). The City’s baseline year inventory is summarized in Table 3.8-1.

Table 3.8-1 City of Roseville Communitywide Greenhouse Gas Emissions Inventory for 2008 (MTCO₂e)

Sector	Total Emissions (MTCO ₂ e)
On-Road Mobile Sources	530,088
Commercial/Industrial Energy Use	292,730
Residential Energy Use	156,267
Residential Natural Gas Use	102,996
Commercial/Industrial Natural Gas Use	53,827
Wastewater Treatment	39,068
Solid Waste	13,110
Water Use	14,298
Total	1,202,383

Notes: MTCO₂e = million metric tons of carbon dioxide equivalent.

Source: City of Roseville 2010: Table A-1.

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

According to the Intergovernmental Panel on Climate Change (IPCC), global mean surface temperature increase by the end of the 21st century (2081–2100), relative to 1986–2005, could range from 0.5 to 8.7 degrees Fahrenheit (°F). Additionally, IPCC projected that global mean sea level rise will continue during the 21st century, very likely at a faster rate than observed from 1901 to 2015. By 2100, the rise will likely range from 18 to 33 inches (0.43 to 0.84 meters), relative to 1986–2005 (IPCC 2023). According to *California's Fourth Climate Change Assessment*, with global GHGs reduced at a moderate rate, California will experience average daily high temperatures that are warmer than the historical average by 2.5°F from 2006 to 2039, by 4.4°F from 2040 to 2069, and by 5.6°F from 2070 to 2100, and if GHG emissions continue at current rates, then California will experience average daily high temperatures that are warmer than the historic average by 2.7°F from 2006 to 2039, by 5.8°F from 2040 to 2069, and by 8.8 °F from 2070 to 2100 (OPR et al. 2018).

Since its previous climate change assessment in 2012, California has experienced several of the most extreme natural events in its recorded history: a severe drought from 2012 to 2016, an almost nonexistent Sierra Nevada winter snowpack in 2014/2015, increasingly large and severe wildfires, and back-to-back years of the warmest average temperatures (OPR et al. 2018). According to *Safeguarding California Plan: 2018 Update*, California experienced the driest 4-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second-smallest Sierra snowpack on record in 2015 and 2014. The year 2024 was the warmest since global records began in 1850 at 1.29°C (2.32°F) above the 20th-century average of 13.9°C (57.0°F). This value is 0.10°C (0.18°F) more than the previous record set in 2023. The 10 warmest years in the 174-year record have all occurred during the last decade (2014–2024) (NOAA 2025). The year 2023 ended the state’s driest consecutive 3-year period with one of the snowiest years on record. California’s recent droughts of 2007–2009, 2012–2019, and 2020–2022) were contrasted with 2017 being the state’s second wettest in terms of statewide precipitation. Climate change is expected to amplify naturally occurring variability in the long term, potentially resulting in a shorter wet season in California but with more extreme atmospheric river storms and, consequently, greater flood damage risk (CDWR and CNRA 2023). Elevated precipitation facilitates more plant growth, which, when directly followed by hot temperatures, dries out, leading to heavy and flammable ground and understory fuels, increasing the risk of large high-severity wildfires.

The changes in precipitation exacerbate wildfires throughout California through a cycle of high vegetative growth coupled with dry, hot periods, which lowers the moisture content of fuel loads. As a result, the frequency, size, and

devastation of forest fires have increased. Moreover, changes in the intensity of precipitation events following wildfires can also result in devastating landslides. As temperatures increase, the amount of precipitation falling as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow into the Central Valley during winter rainstorm events. This scenario would place more pressure on California's levee/flood control system.

Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea level rise have the potential to threaten transportation and energy infrastructure, crop production, forests and rangelands, and public health (OPR et al. 2018). The effects of climate change will also have an indirect adverse impact on the economy as more severe natural disasters cause expensive, physical damage to communities and the state.

Placer County Air Pollution Control District

The PCAPCD has issued guidance on the analysis of GHG emissions in Chapter 5 of the District's CEQA Air Quality Handbook (PCAPCD 2017). The chapter outlines expectations and methodologies for the analysis of GHG emissions generated by a proposed project, and guidance on determining the significance of impacts and appropriate mitigation. PCAPCD recommends that both construction and operations related GHG emissions be quantified for a proposed project, and that the significance of GHG emissions be determined in a manner based on whether such emissions are cumulatively considerable. PCAPCD has developed thresholds of significance for land use development projects, including a de minimis level of 1,100 metric tons of carbon dioxide equivalent per year (MTCO₂e/year), applicable to the operational phase of projects. Projects that exceed this level must conduct further analysis and apply PCAPCD's bright-line thresholds. PCAPCD has adopted a bright-line mass emissions threshold (10,000 MTCO₂e/year) applicable to stationary sources operational emissions and construction emissions for all project types. Projects emissions exceeding this threshold are determined to have cumulatively considerable impacts.

METHODOLOGY

GHG emissions associated with the project would be generated during project construction and during operations after the project is built. Estimated levels of construction- and operation-related GHGs are presented below. The project is evaluated for its consistency with adopted regulations, plans, and policies aimed at reducing GHG emissions, including the 2022 Scoping Plan, Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy, City of Roseville General Plan, SAP, and PCAPCD's adopted thresholds of significance.

Construction of the proposed project would generate GHG emissions primarily associated with construction equipment and vehicle usage. Short-term construction generated GHG emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2022.1.1.37 (CAPCOA 2025), as recommended by PCAPCD and other air districts in California. Modeling was based on project-specific information (e.g., size of the new building, duration of construction, construction phasing) where available; assumptions based on typical construction activities; and default values in CalEEMod that are based on the project location and land use type proposed. Annual emissions associated with on-site equipment use, worker commute, and material hauling/off hauling were modeled and summed based on the anticipated worst-case year of construction, for comparison to PCAPCD's annual GHG emissions threshold.

The project would construct a 17,000 square foot electrical building and install 1,700 feet of new utility line. Based on the width of Westpark Drive (35 feet), 59,500 square feet, or 1.4 acres would be paved. Construction would take approximately 3 years beginning in summer of 2027; however, construction activities would occur for 18 months within that 3-year period. Ten one-way haul trips were included in the construction phase to account for the diesel tank deliveries. For specific modeling parameters, see Appendix A.

The project would not increase long-term daily worker trips to and from the project area, as implementation of the project would not increase employment at the PGWWPT. Quantification was limited to GHG sources that would change (i.e., energy consumed by the two existing Tier 2 1,825 kW generators and two new Tier 2 engine 2,500 kW generators). Operational energy was calculated using CARB emission factors for Tier 2 off-road diesel generators (CARB 2020). In compliance with PCAPCD Rule 502, the generators were modeled to run for no more than 100 hours per year.

PCAPCD developed recommended thresholds of significance for evaluating construction- and operation-related GHG emissions for proposed land use and stationary development projects. PCAPCD’s recommended approach is summarized as follows:

- ▶ De Minimis Level for the operational phases of 1,100 metric tons of CO₂e per year (MTCO₂e/year). A project can be considered as less than cumulatively considerable if its operational emissions are below 1,100 MTCO₂e/year since its contribution is relatively small compared to the cumulative GHG emissions in Placer County. No further GHG analysis is required. Projects that exceed this level must conduct further analysis and apply thresholds below, as discussed herein.
- ▶ Projects with operational emissions above 1,100 MTCO₂e/year (De Minimis Level) but below 10,000 MTCO₂e/year (Bright Line Threshold) are required to use the PCAPCD’s Efficiency Matrix based on the project’s location and land use type. The Efficiency Matrix includes per unit (per capita for residential, per 1,000 sf for non-residential) urban and rural metrics. This approach is only applicable to land use projects with residential and/or commercial components. Projects that cannot meet the appropriate values in the Efficiency Matrix are considered to be cumulatively considerable.
- ▶ Bright-line Threshold of 10,000 MTCO₂e/year applies to the construction and operational phase of land use development projects as well as to operational emissions of stationary source projects. Projects emissions exceeding this threshold are determined to be cumulatively considerable impacts even if the project meets the efficiency thresholds.

Thus, based on the project type and available thresholds of significance, the project would result in a significant impact related to climate change, if it would result in:

- ▶ Operational emissions that exceed the de minimis level of 1,100 MTCO₂e/year;
- ▶ Construction or (if the de minimis threshold of 1,100 MTCO₂e/year is exceeded for operational GHG emissions) operational GHG emissions that exceed 10,000 MTCO₂e/year; or
- ▶ inconsistency with the 2022 Scoping Plan, City General Plan, or Communitywide SAP.

For this project, the net change in GHGs from the project were evaluated compared to PCAPCD’s Bright-Line Threshold because per-capita and per-square-foot efficiency metrics are not suitable for industrial sites that provide wastewater treatment and/or fuel and electricity production.

3.8.2 Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-significant impact. Project construction would generate GHGs from off-road heavy-duty equipment, haul trips, and worker commutes. As described in the methodology, heavy-duty construction equipment usage would begin in April 2028 and commence in October 2029. Estimated levels of construction-related GHGs are summarized in Table 3.8-2.

Table 3.8-2 Project-Generated Construction Greenhouse Gas Emissions

Year	Annual MTCO ₂ e (Tons)
2028	800
2029	537
Total	1,337
Amortized Construction Emissions	45

Notes: Totals may not add due to rounding; GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent; /year = per year; PCAPCD = Placer County Air Pollution Control District.

Source: Modeled by Ascent in 2026.

As shown in Table 3.8-2 the maximum annual GHGs (800 MTCO₂e/year) from project construction would occur in 2028. Moreover, the project would not exceed PCAPCD’s threshold of 10,000 MTCO₂e/year during any year of construction. To determine whether emissions from construction activities exceed thresholds, construction emissions were amortized assuming a 30-year operational life for the new facilities. The level of amortized construction-related GHGs is also combined with annual operational GHG estimates, which are presented below.

Implementation of the project would result in new GHG emissions associated replacing the two existing Tier 2 1,825 kW generators and two new Tier 2 engine 2,500 kW generators. A summary of the change in GHG emissions is provided in Table 3.8-3.

Table 3.8-3 Annual Operational Greenhouse Gas Associated with the Project

Source	Annual MTCO ₂ e (Tons)
Existing 1,825 kW Generators	153
Proposed 2,500 kW Generators	210
Net Change	+57

Notes: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent; /year = per year

Source: Calculations by Ascent in 2026.

As shown in Table 3.8-2, implementation of the project would result in a net increase in GHG emissions of 57 MTCO₂e/year over existing conditions at full build-out in 2030. This would be below PCAPCD’s de minimis level for operational phases of 1,100 MTCO₂e/year and thus, the project would be considered less than cumulatively considerable, and no further analysis is needed.

Implementation of the project would generate 1,337 MTCO₂e during project construction and result in a net increase of 57 MTCO₂e/year during project operations. These would be below PCAPCD’s threshold of 10,000 MTCO₂e/year during any year of construction and operations and would also be below PCAPCD’s de minimis threshold of 1,100 MTCO₂e/year. Thus, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be less than significant, and no mitigation is required.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-than-significant impact. The project would generate GHG emissions that would not exceed PCAPCD thresholds and, therefore, would not result in a considerable contribution to global climate change. These emissions would be consistent with state targets to reduce overall emissions and would be consistent with the Air Quality Element of the City’s General Plan. Specifically, the project would align with General Plan policies AQ1.17, and AQ1.19 by encouraging energy efficiency while promoting energy reliability and capacity. Therefore, the project would not conflict with or obstruct implementation of CARB’s Scoping Plan for achieving GHG reductions consistent with AB 32, would be consistent with PCAPCD’s guidance, and would not conflict with applicable General Plan policies. Thus, this impact would be less than significant, and no mitigation is required.

3.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hazards and Hazardous Materials.				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

3.9.1 Environmental Setting

A database search of various agency lists was conducted for the project area and surrounding areas to identify potential hazardous contamination sites. The PGWWTP is currently listed as a facility that reports to the US Environmental Protection Agency (EPA) according to the Envirofacts Web database (EPA 2026). There are no known hazardous sites that are located within the project vicinity that are included in either the California Department of Toxic Substances Control (DTSC) EnviroStor database (DTSC 2026) or the State Water Resources Control Board (SWRCB) Geotracker database (SWRCB 2026). The project area is not located within a designated very high fire hazard severity zone (FHSZ) identified by the California Department of Forestry and Fire Protection (CAL FIRE). The nearest very high FHSZ is located more than 12 miles to the east (CAL FIRE 2026).

Current operations at the PGWWTP include the transport, storage, and use of hazardous materials. Hazardous chemicals onsite are stored in designated hazardous materials storage or containment areas, depending on the nature of the chemical, and are stored according to local, state, and federal regulations. Additionally, all incidental spills would remain on the PGWWTP site and would be captured at the proposed PGWWTP drain pump station to be pumped to the head of the PGWWTP for treatment.

The PGWWTP currently has an Emergency Action Plan (EAP). The EAP includes the means for addressing and managing all aspects of emergency response that could foreseeably be required at the site, including first aid and medical treatment, evacuation, information on the responsible authorities to notify in the event of an emergency, internal chain-of-command contacts, and documentation. To avoid emergency situations and ensure proper functioning, maintenance workers at the site are responsible for carrying out routine maintenance on equipment, which is also documented in the EAP. The PGWWTP also has a Spill Prevention Control and Countermeasure Plan (SPCC), which contains information on the correct maintenance and handling of hydrocarbons and hydrocarbon-related containment.

3.9.2 Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-significant impact. The project could result in a significant hazard to the public or the environment if the project would include the routine transport, use, or disposal of hazardous materials. The routine use, transport, or disposal of hazardous materials is primarily associated with industrial uses that require such materials for operations or produce hazardous wastes as by-products of production application. Construction activities would involve excavation, trenching, paving, installation of a new electrical facility and generators, and appurtenant infrastructure. The project would include expanded electrical infrastructure, emergency generators to ensure service reliability, and fuel storage tanks. Although operation of the project would include storage of diesel fuel on-site, fuel is currently stored on-site to serve existing generators. Therefore, hazardous materials used for operation of the project would be similar to existing operations.

Construction of the project would result in emissions of ROG, NO_x, and particulate matter from the use of heavy-duty construction equipment, travel on unpaved surfaces, and earth movement for site preparation and grading activities; however, no new hazardous waste by-products are anticipated as a result of project operation. As discussed above in Section 3.8, construction activities would be temporary and would not increase long-term fuel demand. In addition, construction activities would only consume the necessary amount of fuel to complete work in an efficient and timely manner. Furthermore, the project would be constructed and operated in compliance with applicable federal, state, and local laws pertaining to the handling, transport, usage, and disposal of hazardous substances, including the California Occupational Safety and Health Act regulations, DTSC regulations, EPA, and regulations specified by the Roseville Fire Department. In addition, the PGWWTP currently has a SPCC for onsite storage and handling of hydrocarbons, and an EAP for addressing and managing all aspects of emergency response. These plans would be updated to cover any new facilities and processes included as part of the project. Contractors handling hazardous materials would also be required to be familiar with the requirements of both the SPCC and EAP. Contractors would be trained in the procedures to follow in the event of a spill, and in the deployment of containment and clean up equipment.

Therefore, because the City and its contractors would implement and comply with these regulations during construction and operation of the project, impacts related to creation of significant hazards to the public through routine transport, use, and disposal of hazardous materials would not occur. This impact would be less than significant, and no mitigation is required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less-than-significant impact. There is a small risk of upset during implementation of the project during construction; however, construction activities would be temporary and would not increase long-term fuel demand. Fuel stored on-site would only be used when the emergency generators are needed. Additionally, all incidental spills would remain on the PGWWTP site and would be captured at the proposed PGWWTP drain pump station to be pumped to the head of the PGWWTP for treatment. Chemicals used in the treatment process would be managed and contained similar to existing operations and would be handled according to existing protocols in the event of an upset during project implementation. In addition, the project would be subject to local, state, and federal laws concerning the use of hazardous materials at the site. In addition, continued implementation of the SPCC and EAP would also minimize the potential for release of hazardous substances. Therefore, this impact would be less than significant, and no mitigation is required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less-than-significant impact. The nearest existing school to the project area is West Park High School, which is located approximately 850 feet east of the nearest project element. The SPCC and EAP are currently in place to reduce the risk to adjacent properties associated with existing operations and this would also address the project. Temporary use of hazardous materials, including gasoline, diesel fuel, hydraulic oils, and equipment coolants, would be similar to existing uses, limited to the immediate project footprint, and all spills would be contained immediately to prevent potential exposure. No construction would occur on or near the school site. Therefore, the impact on nearby schools would be less than significant, and no mitigation is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less-than-significant impact. As discussed above, the PGWWTP is listed as a facility that reports to the EPA. However, the project area is not identified by EPA, DTSC, or SWRCB as a hazardous materials site (EPA 2026, DTSC 2026, SWRCB 2026). Thus, the project would not create a significant hazard to the public or to the environment as a result of existing hazardous material contamination. Therefore, this impact would be less than significant, and no mitigation is required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No impact. The nearest airport to the project area is Lincoln Regional Airport, approximately 7.7 miles northeast of the project area. The project area is not located within the airport land use plan for this airport, or any other airport, nor is it located in a restricted airport zone. Therefore, there would be no impact, and no mitigation is required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No impact. The City has an Emergency Operations Plan and a Multi-Hazard Mitigation Plan addressing emergencies within the City. As discussed above, the PGWWTP has implemented an EAP for operation of the existing facility. This plan would be updated to cover any new facilities and processes included as part of the project. The project would not physically interfere with any of these plans. Therefore, there would be no impact, and no mitigation is required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Less-than-significant impact. The project area is not located within a forested area and is not designated as a FHSZ by CAL FIRE (CAL FIRE 2026). The immediate project vicinity is dominated by development and annual grassland, with trees bordering the project area. Activities associated with construction, including the use of vehicles and other equipment could result in ignition sparks, but contractors would be trained to execute work in a manner that is safe with respect to fire hazards, and fire suppression equipment would be readily available at the construction site. Additionally, the diesel fuel storage would be housed within double-walled steel tanks for further protection against leakages. Furthermore, as discussed in Section 3.15, "Public Services," adequate fire protection services are available to serve the project area. Because the project area is not designated as a FHSZ and numerous safety measures would be implemented as part of the project, this impact would be less than significant. No mitigation is required.

3.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality.				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial on- or offsite erosion or siltation;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

3.10.1 Environmental Setting

HYDROLOGY

The project area is located within the Pleasant Grove Creek watershed. The existing PGWWTP is within the area covered by the Pleasant Grove Ecosystem Restoration Plan (Placer County 2006), which guides various aspects of Pleasant Grove Creek watershed planning, including pollution control, storm water management, and improvement of upstream and headwater conditions.

Pleasant Grove Creek is approximately 0.4 miles north of the existing PGWWTP, and Curry Creek is located to the south and drains lands south of the project area. The PGWWTP currently discharges effluent to Pleasant Grove Creek approximately 1 mile downstream of the confluence of the main branch and Kaseberg Creek.

Pleasant Grove Creek is an intermittent, and primarily surface water-fed stream that drains approximately 30,600 acres in the northwestern portion of the cities of Roseville and Rocklin and their outlying western suburbs. The creek comprises four subbasins: Lower Pleasant Grove Creek, Upper Pleasant Grove Creek, South Branch Pleasant Grove Creek, and Kaseberg Creek. The creek headwaters begin in Upper Pleasant Grove Creek, in the low Sierra Nevada foothills at an elevation of approximately 590 feet above mean sea level (amsl), eventually flowing into the Pleasant Grove Creek Canal at approximately 35 feet amsl.

Streams in the project vicinity are fed chiefly by surface runoff from rainfall. Consequently, many streams in the area are intermittent, flowing only during the wet season or during rainfall events. In an effort to control the drainage pattern of Pleasant Grove Creek and other rivers in the region, dikes and levees have been constructed in agricultural areas to create a predictable channelized stream. These modifying features have forced Pleasant Grove Creek into what is today a highly channelized stream morphology, which has resulted in increased stage heights during periods of high flow. As a result, the natural floodplain has been all but eliminated, and flooding occurs above areas on the creek where the channel cannot accommodate artificially high stage heights.

WATER QUALITY

Water quality in Pleasant Grove Creek has been degraded over time, and it is currently a Section 303(d) listed waterbody for ammonia, specific conductance, and pH (SWRCB 2012). The PGWWTP is permitted to discharge 12 million gallons per day (mgd) average dry weather flow (ADWF) to Pleasant Grove Creek under the Waste Discharge Requirements (WDRs) specified in National Pollutant Discharge Elimination System (NPDES) Permit No. CAG585001, issued by the Central Valley RWQCB under Order No. R5-2023-0025 (SWRCB 2025). The discharge permit implements the Basin Plan's water quality objectives and establishes PGWWTP effluent standards and receiving water quality standards for Pleasant Grove Creek. The permit sets discharge limitations for contaminants of concern in effluent discharges, including biological oxygen demand, pH, total suspended solids, total ammonia nitrogen, and total nitrogen, and combined nitrate and nitrite. The permit also sets limits on the quality of water in Pleasant Grove Creek downstream of the treatment facility.

FLOODPLAIN

The Federal Emergency Management Agency (FEMA) oversees federal floodplain management policies and runs the National Flood Insurance Program (NFIP) adopted under the National Flood Insurance Act of 1968. FEMA prepares Flood Insurance Rate Maps (FIRM) that delineate the regulatory floodplain to assist local governments with land use planning and floodplain management decisions to meet the requirements of the NFIP. Floodplains are divided into flood hazard areas, which are areas designated according to their potential for flooding, as delineated on FIRMs. Special Flood Hazard Areas (SFHAs) are the areas identified as having a 1 percent chance of flooding in a given year (otherwise known as the 100-year flood). In general, the NFIP mandates that development is not to proceed within the regulatory 100-year floodplain, if the development is expected to increase flood elevation by 1 foot or more. The project area is located in Flood Zone X designated by the Federal Emergency Management Agency (FEMA) in Flood Insurance Rate Map No. 06061C0920H (FEMA 2026).

GROUNDWATER

The City of Roseville is located within the approximately 350,000-acre North American River subbasin, which extends beneath western Placer County, southern Sutter County and northern Sacramento County, and is a subbasin of the broader Sacramento Groundwater Basin (DWR 2006). The North American subbasin hydrogeology is characterized by an upper groundwater system and a lower groundwater system. The upper groundwater system exists in the deep Quaternary alluvial deposits described in Section 3.6, "Geology and Soils." The lower groundwater system is largely confined and exhibits recharge characteristics that indicate that it is somewhat hydraulically isolated from the upper system. Water-bearing features in the upper system are generally limited to loose, unconsolidated sediments, with water flowing

intermittently. The vadose zone is relatively deep and becoming deeper over time due to groundwater withdrawal for agricultural use. Groundwater recharge occurs through surface water and snowmelt infiltration (DWR 2006).

3.10.2 Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less-than-significant impact. The project would expand the electrical facilities of the PGWWTP and consolidate the stormwater collection to the PGWWTP drain system on the southern end of the project area. Construction activities associated with the project would involve site clearing, grading, excavation, underslab piping/electrical, footings, pouring, and backfill for the new electrical building. Then the equipment, piping, electrical, and controls would be installed. All vegetation would be stripped and grubbed from the project footprint and removed from the project area. The City has adopted Ordinance No. 4822 related to urban stormwater quality management and discharge control. The City Code (City of Roseville Code of Ordinances Chapter 14.20) sets forth requirements for any development that would require stormwater control measures. The City would comply with the provisions of this ordinance including preparing a Stormwater Management Plan congruent with the *City of Roseville's Stormwater Quality Design Manual* and a Stormwater Maintenance Plan.

In addition to the City requirements, the Central Valley RWQCB requires compliance with the General Permit for disturbances over 1 acre. Construction site erosion control methods and other best management practices (BMPs) would be included in the development of a SWPPPs, per the requirements of the General Permit. Implementation of BMPs during construction would minimize effects on water quality.

The PGWWTP is permitted and has the capacity to treat and discharge 12 mgd ADWF. Operation of the project would not degrade water quality of the effluent discharged by the PGWWTP or Pleasant Grove Creek. Compliance with City and Central Valley RWQCB requirements would minimize impacts to water quality. This impact would be less than significant, and no mitigation is required.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less-than-significant impact. The project would not use groundwater; however, the project would result in a small increase in impervious surfaces on-site that could affect groundwater recharge. The new area of impervious surfaces would be small (i.e., less than 2 acres) compared to the size of the 350,000-acre North American River groundwater subbasin. Therefore, this small increase in impervious surfaces is not expected to interfere substantially with groundwater recharge. This impact would be less than significant, and no mitigation is required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial on- or offsite erosion or siltation;

Less-than-significant impact. Construction of the proposed project would result in minor alterations to the existing drainage pattern of the project area. Grading activities for facility construction could result in increased sediment in stormwater runoff. Through the City stormwater management permitting process, a local grading plan would be developed, which would minimize runoff generation during construction. Additionally, as discussed above under Impact 3.10.2a above, a SWPPP would be developed under the General Permit, and BMPs would be incorporated to minimize stormwater drainage and erosion related to construction.

Stormwater collection would be consolidated to the PGWWTP drain system on the southern end of the project area that would allow new impervious surfaces to drain into the existing stormwater system. Stormwater that enters the existing PGWWTP area is currently collected and retained on-site in the stormwater pond and treated on-site when there is available capacity.

The existing stormwater collection system has been designed to avoid substantial erosion on-site or off-site, including within Pleasant Grove Creek. The project would be designed and constructed to minimize erosion on- and off-site through use of BMPs and would be incorporated into the existing stormwater collection system. Therefore, this impact would be less than significant, and no mitigation is required.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

Less-than-significant impact. As discussed in Impact 3.10.2ci above, the project would alter the drainage pattern at the project area and increase impervious surfaces construction of the new electrical building. New impervious surfaces would be connected to the on-site stormwater collection system, which would be consolidated to the southern end of the project area, and BMPs would be used during construction to minimize runoff.

The additional impervious surface area would be small in relation to the overall site, and the existing stormwater collection system would be designed to avoid substantial on-site or off-site flooding, including Pleasant Grove Creek. Therefore, this would be less than significant, and no mitigation is required.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less-than-significant impact. Stormwater that enters the existing PGWWTP is currently collected and retained on-site in the stormwater basins and treated on-site when there is available capacity. Likewise, stormwater collected from the new impervious surfaces would be consolidated to the drain system on the southern end of the project area. The project would be designed to have adequate on-site drainage, and the PGWWTP would continue to operate in a manner that minimizes stormwater pollution in accordance with City Ordinance No. 4822. During construction activities, BMPs detailed in the SWPPP and in the Stormwater Management Plan would be implemented to minimize the risk of stormwater pollution from erosion. Therefore, this impact would be less than significant, and no mitigation is required.

iv) Impede or redirect flood flows?

No impact. According to the FEMA National Flood Hazard Layer Map, the project area is located in Flood Zone X, outside of the FEMA 100-year flood zone (FEMA 2026). The project would not impede or redirect flood flows. No impact would occur, and no mitigation is required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No impact. As previously described, the project area is located within Flood Zone X and is not located within the 100-year flood zone as depicted on the FEMA (FEMA 2023). In addition, the proposed project is not located in a coastal region and is therefore not exposed to the risk of tsunami. Nor is the project located near a large inland waterbody that would expose it to the risk of seiche. Therefore, there would be no impact, and no mitigation is required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No impact. As discussed in Impact 3.10.2a above, the project would not substantially degrade water quality with the implementation of a project-specific SWPPP and associated BMPs. The project would not interfere substantially with groundwater recharge nor impede sustainable groundwater management of the basin as discussed in Impact 3.10.2b above. Therefore, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No impact would occur, and no mitigation is required.

3.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning.				
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.11.1 Environmental Setting

The existing PGWWTP is located within the City of Roseville and is designated as Public/Quasi Public by the City General Plan (City of Roseville 2021a). The City-owned parcel immediately south of the PGWWTP, where the Energy Recovery Project facilities are located and the new electrical building would be constructed, is also within the City of Roseville, and is within the *West Roseville Specific Plan* area. This parcel is also designated as Public/Quasi Public (City of Roseville 2021b). Lands with this designation include areas for education, religious assembly, governmental offices, municipal corporation yards, and water treatment plants. Lands within the PGWWTP fence-line boundary are developed with WWTP facilities, paved areas, or other disturbed areas.

Lands surrounding the PGWWTP include Public/Quasi Public lands to the north (the existing Roseville Energy Park), undeveloped open space and West Park High School to the east, open space and a public storage facility to the south, and the Placer Valley Soccer Complex and residences to the west. To minimize compatibility concerns, a 1,000-foot non-residential buffer surrounds the PGWWTP (City of Roseville 2021b). The nearest residences are approximately 1,000 feet to the west of the nearest project element.

3.11.2 Discussion

a) Physically divide an established community?

No impact. The project facilities would be located within existing PGWWTP property and immediately south of the existing PGWWTP. The nearest residential uses are approximately 1,000 feet west of the nearest project element. Thus, the project would not divide an established community and no impact would occur. No mitigation is required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No impact. As discussed above, the existing PGWWTP and the City-owned parcel immediately to the south are currently designated as Public/Quasi Public. The PGWWTP and City-owned parcel to the south are also both zoned as Public/Quasi Public, which corresponds to education, religious assembly, governmental offices, municipal corporation yards, and water treatment plants. Expansion and consolidation of the PGWWTP electrical supply would be consistent with the existing land use and zoning designations and current use of the project area. Therefore, the project would remain consistent with the land use and zoning designation of the area. There would be no impact related to a conflict with a land use policy. No mitigation is required.

3.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources.				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

3.12.1 Environmental Setting

According to the City General Plan, mineral resources are limited and no mineral extraction operations currently exist within the City or are anticipated in the future (City of Roseville 2020). The California Geologic Survey (CGS) classifies the project area as Mineral Resource Zone (MRZ)-4, which is an area of unknown mineral resource potential. However, the area is not designated by CGS as an area of gold, aggregate, clay, or granite production, and there is no active mineral extraction occurring on-site (DOC 2026).

3.12.2 Discussion

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

No impact. Mineral resources within the City are limited, and the project area is not located within an area of known mineral resources. Therefore, development of the project facilities would have no effect on the availability of known mineral resources that would be of value to the region and the residents of the state, and no impact would occur. No mitigation is required.

- b) **Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

No impact. There are no locally important mineral resource recovery sites delineated on a local general plan, specific plan, or other land use plan that includes the project area. Therefore, development of the project facilities would have no effect on the availability of known mineral resources, and no impact would occur. No mitigation is required.

3.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.Noise.				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, or a substantial temporary or permanent increase in noise levels above existing ambient levels that could result in an adverse effect on humans?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

3.13.1 Environmental Setting

EXISTING NOISE ENVIRONMENT

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals and places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels and the potential for nighttime noise to result in sleep disruption. Additional land uses such as schools, transient lodging, historic sites, cemeteries, and places of worship are also generally considered sensitive to increases in noise levels. These land use types are also considered vibration-sensitive land uses in addition to commercial and industrial buildings where vibration could interfere with operations within the building, including levels that may be well below those associated with human annoyance.

The nearest sensitive receptor (i.e. West Park High School) to the project area is located approximately 850 feet east as measured from the nearest high school building to the nearest project element (i.e. utility line along Westpark Drive). Additionally, there are residential land uses located 1,000 feet west, 1,250 feet northeast, and 1,650 feet southeast as measured from the property line to the nearest project element. The existing noise environment is primarily characterized by transportation noise generated by the local roadway network (i.e. traffic on Westbrook Boulevard, Westpark Drive, and Pleasant Grove Boulevard).

FEDERAL

US Environmental Protection Agency Office of Noise Abatement and Control

EPA Office of Noise Abatement and Control was originally established to coordinate federal noise control activities. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments. However, documents and research completed by the EPA Office of Noise Abatement and Control continue to provide value in the analysis of noise effects. Specifically, EPA identified in the Noise Effects Handbook a level of 70 A-weight decibels (dBA) at which the chances for sleep awakening become more prevalent. For evaluating the potential for noise sources to disrupt sleep, the 70 dBA (Single-Event Noise Level) can be applied.

Federal Transit Administration

To address the human response to ground vibration, Federal Transit Administration (FTA) has set forth guidelines for maximum-acceptable vibration criteria for various types of land uses. These guidelines are presented in Table 3.13-1. FTA has also established construction vibration damage criteria, as shown in Table 3.13-2.

Table 3.13-1 Ground-Borne Vibration Impact Criteria for General Assessment

Land Use Category	GVB Impact Levels (VdB, 1 micro-inch/second)		
	Frequent Events ¹	Occasional Events ²	Infrequent Events ³
Category 1: Buildings where vibration would interfere with interior operations.	65 ⁴	65 ⁴	65 ⁴
Category 2: Residences and buildings where people normally sleep.	72	75	80
Category 3: Institutional land uses with primarily daytime uses.	75	78	83

Notes: GVB = ground-borne vibration; VdB, 1 micro-inch/second = vibration decibels referenced to 1 micro-inch per second and based on the root mean square velocity amplitude.

¹ "Frequent Events" is defined as more than 70 vibration events of the same source per day.

² "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

³ "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

⁴ This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2018: Table 6-3.

Table 3.13-2 Federal Transit Administration Construction Vibration Damage Criteria

Land Use Category	PPV in/sec
Reinforced-concrete, steel or timber (no plaster)	0.5
Engineered concrete and masonry (no plaster)	0.3
Non-engineered timber and masonry buildings	0.2
Buildings extremely susceptible to vibration damage	0.12

Notes: PPV = peak particle velocity; in/sec = inches per second.

Source: FTA 2018: Table 7-5.

STATE

At the state level, the State of California establishes general guidance and regulatory frameworks related to noise and vibration through various codes and publications, including but not limited to the CBC transmission standards, the California General Plan Guidelines (*Governor's Office of Land Use and Climate Innovation*), and Caltrans' *Transportation and Construction Vibration Guidance Manual*. While these documents provide overarching guidance, the analysis in this document primarily relies on noise standards adopted at the local level, as local jurisdictions are typically responsible for establishing and enforcing specific noise ordinances and land use compatibility standards.

LOCAL

City of Roseville General Plan 2035

The Noise Element in the City of Roseville General Plan outlines policies and implementation measures to achieve the City's goals of protecting Roseville residents from the harmful and annoying effects of exposure to excessive noise. It establishes separate acceptable noise level criteria for land uses affected by fixed or transportation-related noise sources (City of Roseville 2020).

The following policies would apply to the project:

- ▶ **Policy N1.1:** The City's exterior noise compatibility standards for uses affected by transportation noise sources are included as Table IX-1 of the General Plan 2035 (presented as Table 3.13-3). Exterior noise levels shall be mitigated to the extent feasible using site planning, building orientation, and/or other construction techniques or design features. Noise barriers should only be used after other feasible noise reduction strategies are exhausted, and not where they would interrupt existing or future community pedestrian or bicycle connectivity.
- ▶ **Policy N1.2:** The City's interior noise compatibility standards for uses affected by transportation noise sources are 45 dBA L_{dn} for noise-sensitive uses such as residences, lodging, hospitals, assisted living facilities, and other places where people normally sleep. For noise-sensitive uses where people do not sleep, such as offices, schools, and uses with similar noise sensitivity, noise levels should be no greater than 45 dBA L_{eq} . Proposed projects should incorporate noise reduction strategies, if necessary, to achieve these interior noise levels.
- ▶ **Policy N1.3:** The City's exterior noise compatibility standards for uses affected by non-transportation-related noise are defined within the City's Noise Ordinance, and should be applied consistent with the Noise Ordinance.
- ▶ **Policy N1.5:** If existing noise levels exceed the noise compatibility standards in Table IX-1 (presented as Table 3.13-3) or Policy N1.2, then feasible methods of reducing noise to levels consistent with standards should be considered, but are not required. However, if existing noise levels exceed noise compatibility standards and a project results in a significant increase in noise (as defined below), then feasible methods of reducing noise to avoid a significant noise increase should be applied. In no case should a project result in a Clearly Unacceptable noise level according to Table IX-1 of the Noise Element (presented as Table 3.13-3).
 - Where existing exterior noise is less than 60 dB, a ≥ 5 dBA increase in noise is significant.
 - Where existing exterior noise is between 60 and 65 dBA, a ≥ 3 dB increase in noise is significant.
 - Where existing exterior noise is greater than 65 dB a ≥ 1.5 dBA increase in noise is significant.
- ▶ **Policy N1.9:** Construction-related noise that is consistent with the City's Noise Ordinance is exempt from the noise standards outlined in this Element.

Table 3.13-3 Exterior Noise Compatibility Standards for Uses Affected by Transportation Noise

Land Use Category	Community Noise Exposure (L_{dn} or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential	50-60	60-65	65-70	70-80
Lodging-Motels, Hotels	50-65	65-70	70-75	75-80
Schools, Libraries, Places of Worship, Hospitals, Assisted Living	50-65	65-70	70-75	75-80
Auditoriums, Concert Halls, Amphitheaters	NA	50-70	NA	70-80
Sports Arena, Outdoor Spectator Sports	NA	50-70	NA	70-80
Playgrounds, Neighborhood Parks	50-65	65-70	70-75	75-80

Land Use Category	Community Noise Exposure (L _{dn} or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50-70	NA	70-75	75-80
Office Buildings	50-65	65-70	70-75	75-80

Notes: CNEL = Community Equivalent Noise Level; dBA = A-weighted decibel; L_{dn} = day-night average noise level.

Source: City of Roseville 2020.

City of Roseville Municipal Code

The City of Roseville has a Noise Ordinance (Chapter 9.24 of the City Code) designed to prohibit unnecessary, excessive, and annoying sound levels from all sources. Key provisions of the ordinance that may apply to the project include:

Section 9.24.030 Exemptions

The following source relevant to the project are exempt from the provisions of this title:

- G. Private construction (e.g., construction, alteration or repair activities) between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday, and between the hours of 8:00 a.m. and 8:00 p.m. Saturday and Sunday; provided, however, that all construction equipment shall be fitted with factory installed muffling devices and that all construction equipment shall be maintained in good working order.

Section 9.24.100 Sound Limits for Sensitive Receptors

It is unlawful for any person at any location to create any sound, or to allow the creation of any sound, on property owned, leased, occupied or otherwise controlled by such person, which causes the exterior sound level when measured at the property line of any affected sensitive receptor to exceed the ambient sound level by three dBA or exceed the sound level standards as set forth in Table 1 (presented as Table 3.13-4), by three dBA, whichever is greater.

Table 3.13-4 Sound Level Standards (for Non-Transportation or Fixed Sound Sources)

Sound Level Descriptors	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Hourly L _{eq} , dBA	50	45
Maximum Level, dBA	70	65

Notes: dBA = A-weighted decibels; L_{eq} = equivalent continuous sound level.

- ^A Each of the sound level standards specified in Table 3.13-4 shall be reduced by five dB for simple tone noises, consisting of speech and music. However, in no case shall the sound level standard be lower than the ambient sound level plus three dB.
- ^B If the intruding sound source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient sound level can be measured, the sound level measured while the source is in operation shall be compared directly to the sound level standards of Table 3.6-4.

Source: City of Roseville 2020.

Section 9.24.120 Sound Limits for Industrial Properties

Notwithstanding the provisions of Section 9.24.100, it is unlawful for any person to create any sound, or to allow the creation of any sound, on property with an industrial zoning designation that is owned, leased, occupied or otherwise controlled by such person where an industrial land use shares a common property line with a sensitive receptor or is separated from a sensitive receptor by a roadway, which causes the exterior sound level when measured at the property line of any affected sensitive receptor to exceed the ambient sound level by seven dBA, or exceed the sound level standards as set forth in Table 3.13-4 by seven dBA, whichever is greater.

Section 9.24.140 Operational Standards for City Activities

Notwithstanding any other provisions of this chapter, City operations and activities are not subject to the provisions of this chapter. The City council may, by resolution, adopt operational standards for City activities to effectuate the purposes of this chapter.

METHODOLOGY

Construction Noise and Vibration

To assess potential short-term (construction-related) noise and vibration impacts, sensitive receptors and their relative exposure were identified. Project-generated construction source noise and vibration levels were determined based on methodologies, reference emission levels, and usage factors from FTA's *Guide on Transit Noise and Vibration Impact Assessment* methodology (FTA 2018) and FHWA's *Roadway Construction Noise Model User's Guide* (FHWA 2006). Reference levels for noise and vibration emissions for specific equipment or activity types are well documented, and the usage thereof is common practice in the field of acoustics.

Operational Noise

The new electrical systems would not create substantial new noise sources, and the general types of onsite operational activities (i.e. waste water treatment plant operation) would remain the same as those that currently occur. Therefore, the overall intensity of the operations and associated noise levels would not increase. As a result, a quantitative analysis of operational noise and vibration levels is not necessary.

3.13.2 Discussion

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, or a substantial temporary or permanent increase in noise levels above existing ambient levels that could result in an adverse effect on humans?**

Less-than-significant impact. The project would involve upgrading and expanding the existing electrical facilities at the PGWWTP to prepare for expanded electrical needs. These upgrades would include a new electrical building, two new generators, and a utility feed. This analysis considers the potential long-term operational noise and short-term construction noise generated by the project.

Construction Noise

Construction of the project would be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday per the hours of exemption for construction noise stated in section 9.24.030 of the City of Roseville Municipal Code. Construction activities would involve site clearing, grading, excavation, pouring, piping installation, and backfilling. The project would not require either pile driving or blasting work. The equipment required for the construction of the project would include an excavator, backhoe, crane, dump trucks, front end loader, skidsteer, vibratory compactor, roller, sheepsfoot compactor, gradall, forklift, paver, and loader. Short-term construction noise levels on and near the project area would fluctuate depending on the type, number, and duration of usage for the varying types of heavy-duty equipment. The effects of construction noise largely depend on the type of construction activities being performed, noise levels generated by those activities, distances to noise-sensitive receptors, the relative locations of noise attenuating features such as vegetation and existing structures, and existing ambient noise levels. Table 3.13-5 shows reference noise levels for typical pieces of construction equipment.

Table 3.13-5 Noise Emission Levels from Construction Equipment

Equipment Type	Typical Noise Level (dBA) at 50 feet
Dump Truck	76
Drill Rig Truck	79
Concrete Mixer	85
Crane	85
Dozer	85
Grader	85
Excavator	85
Front End Loader/Backhoe	80
Paver	89
Roller	85
Scraper	89

Notes: dBA = A-weighted decibel. Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacturer-specified noise levels for each piece of heavy construction equipment.

Source: FTA 2018.

The nearest sensitive receptor would be the residential land uses located approximately 1,000 feet west of the nearest project element, which would be approximately 1,700 feet west as measured from the center of construction activity to the nearest residential property line. Construction noise was analyzed using the data methodologies from FTA's Transit Noise and Vibration Impact Assessment Manual (FTA 2018), which predicts average noise levels at nearby receptors by analyzing equipment types, distance from source to receptor and usage factor. This methodology calculates the composite average noise levels for the two loudest pieces of construction equipment operating simultaneously. The two loudest pieces of equipment required in construction of the project would be a vibratory compactor and gradall which generates combined reference noise levels 80.8 dBA L_{eq} and 86.0 dBA L_{max} at 50 feet. Construction noise would attenuate to 41.2 dBA L_{eq} and 46.5 dBA L_{max} at the property line of the nearest sensitive receptor. In addition, noise at further distances would continue to decrease. However, daytime construction activities would be exempt from the City of Roseville's noise standards (i.e. 50 dBA L_{eq} and 70 dBA L_{max}). Detailed calculations can be found in Appendix B.

Table 3.13-6 Noise Exposure at Off-Site Noise-Sensitive Receptors from Typical Construction Activity

Sensitive Receptor	Distance to Center of Construction Activity (feet)	Daytime Construction Noise Exposure Level at Sensitive Receptor ¹	
		L_{eq} (dBA)	L_{max} (dBA)
Residence to the west of the project	1,700	41.2	46.5
Thresholds			
City of Roseville Municipal Code Standard	—	50	70
City of Roseville Municipal Code Industrial Standard	—	57	77

Notes: dBA = A-weighted decibel; L_{eq} = equivalent continuous sound level; L_{max} = maximum sound level.

¹ Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacturer-specified noise levels for each piece of heavy construction equipment.

Source: Data modeled by Ascent in 2026.

As stated above, project construction would remain within the exempt hours for construction noise of 7:00 a.m. to 7:00 p.m. Monday through Friday. In addition, construction noise would not result in an exceedance of the City code daytime standards of 50 dBA L_{eq} or 70 dBA L_{max} or the industrial noise standards of 57 dBA L_{eq} or 77 dBA L_{max} at the nearest noise sensitive receptor. Nighttime construction is not expected to occur.

Operational Stationary Noise

The project does not propose any new types of stationary noise sources that are not present in the existing project area. The stationary noise sources within the existing project area that would be upgraded as a part of the project include standby generators. There are two existing standby generators at the PGWWTP and both would be replaced. The project includes construction of a new electrical building located along the southern border of the existing PGWWTP where the new generators would be located. The location of the new generators would be approximately 1,400 feet west of the nearest residential land use and directly east of the existing electrical building on the southern portion of the project area. This would place the new generators further from the western residential land uses compared to existing conditions. The new generators would be designed to accommodate the existing and future electrical capacity needs. Stationary noise related to the implementation of the project would primarily be characterized by generator noise for emergency stand-by use only. An increase of 3 dB over ambient noise levels is the minimum threshold for what is perceptible by human hearing. A 3 dB increase in ambient noise levels can be achieved by doubling the intensity of a given noise source. The new generators proposed by the project would replace existing generators and be placed further from noise sensitive receptors than the existing generators, therefore, would not result in a doubling of a noise source or an audible increase in noise at the nearest receptors. As the project would not result in an audible increase in noise it also would not conflict with the City code daytime standards of 50 dBA L_{eq} or 70 dBA L_{max} or the industrial noise standards of 57 dBA L_{eq} or 77 dBA L_{max} .

Operational Transportation Noise

The completion of the project would result in an expansion of the electrical facilities at the Roseville PGWWTP. Maintenance of the expanded facilities would not require any additional employees at the site as a part of standard operations. Therefore, project operation would not result in an increase of long-term vehicle trips or transportation noise. This impact would be less than significant, and no mitigation is required.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less-than-significant impact. Project operation would not involve the introduction of any new permanent sources of groundborne vibration or noise and would not locate any new sensitive receptors near existing sources of vibration. Construction of the project would not involve vibration intensive activities such as pile driving or blasting. Construction would require the use of equipment such as an excavator, backhoe, crane, dump truck, front end loader, skidsteer, vibratory compactor, roller, sheepsfoot compactor, gradall, forklift, paver, and loader. The most vibration intensive piece of equipment required for construction of the project would be a compactor. A compactor would result in an exceedance of the FTA's recommended 80 VdB threshold for human annoyance at a distance of 73 feet and an exceedance 0.2 PPV in/sec threshold for structural integrity of non-engineered timber and masonry buildings at 26 feet. The nearest sensitive receptor would be located approximately 1,000 feet west as measured from the residence property line to the nearest project element. At this distance groundborne vibrations generated during project construction would not result in an exceedance of the standards for human annoyance or structural integrity. Detailed calculation can be found in Appendix B. This impact would be less than significant, and no mitigation is required.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less-than-significant impact. The existing PGWWTP is not located within 2 miles of a private airstrip, airport land use, public airport, or a public use airport. The nearest airport to the PGWWTP is the Lincoln Regional Airport, approximately 7.7 miles northeast of the project area. At this distance noise associated with airport activities would not affect the noise environment in the project area. Therefore, the project would not expose people working in the project area to excessive noise levels from airport operations. There would be less-than-significant impact, and no mitigation is required.

3.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV.Population and Housing.				
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Environmental Setting

According to the US Census Bureau, the City of Roseville had an estimated population of 163,304 in 2024, an approximately 10.5 percent increase from the last population census in 2020 (US Census Bureau 2026). No houses are located within the project area, which is an existing wastewater treatment plant and undeveloped land. The nearest residences are located approximately 1,000 feet west of the nearest project element.

3.14.2 Discussion

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less-than-significant impact. Operation of the project would not require additional employees to operate and maintain the new facilities. Routine maintenance would be similar to or less than existing maintenance and would occur for all new facilities. Construction of the project would involve between 4 and 20 on-site construction workers at any given time during the 3-year construction period. Construction of the facilities would not result in a substantial increase in the number of permanent workers/employees. Therefore, it is assumed that the construction workers would be local residents and would not induce growth in the project vicinity, either directly or indirectly.

The proposed project would consolidate and expand the PGWWTP electrical supply from Roseville Electric and PGWWTP’s emergency generators into a single expandable facility to serve the existing and projected electrical needs of the PGWWTP. The project would not expand the capacity of the PGWWTP or other infrastructure that would accommodate additional growth. The project would not directly or indirectly induce growth. Therefore, the impact of the project would be less than significant, and no mitigation is required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No impact. The proposed project would be constructed within the existing PGWWTP boundary. No existing housing would be removed or displaced by construction of the operation of the project, nor would replacement housing be constructed elsewhere. Therefore, no impact would occur, and no mitigation is required.

3.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services.				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☒	☐

3.15.1 Environmental Setting

Fire protection, emergency medical services, and hazardous materials management within the City are provided by Roseville Fire Department (RFD). The RFD operates eight fire stations and one fire training center within the City. The fire stations have a target response time of 6.5 minutes after a 911 request is made. Each station houses a fire engine that carries water and paramedic equipment. Each fire engine has a captain who supervises assigned personnel, an engineer who operates the truck and fire pump, and a firefighter-paramedic (City of Roseville 2026a). The nearest fire station to the PGWWTP is Roseville Fire Station 9, approximately 0.5 miles east.

Law enforcement within the City is provided by the Roseville Police Department (RPD). The RPD had 155 sworn officers and 71 non-sworn employees in 2024 (City of Roseville Police Department 2024). Sworn officers are responsible for emergency and law enforcement related activities. Non-sworn employees are responsible for other duties including animal control, dispatch, record maintenance, jail management, and administrative tasks. The Placer County Sheriff’s Department is responsible for providing law enforcement services to the unincorporated areas of Placer County immediately adjacent to the City.

The nearest school to the PGWWTP is the West Park High School, located approximately 850 feet to the east, which serves grades nine through twelve. The land to the east of the PGWWTP is designated as open space/parks and recreation. The nearest park facility is Pistachio Regional Park, located approximately 140 feet south of the project. Pistachio Regional Park is a 45-acre joint-use city wide park that provides a baseball field, two softball fields, and trail access (City of Roseville 2026b).

3.15.2 Discussion

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant**

environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Less-than-significant impact. Roseville Fire Station 9, which is approximately 0.5 miles to the east, would continue to provide primary fire response services to the PGWWTP. Although the project would include construction and operation of several new structures within and adjacent to the PGWWTP, including Electric Building No. 3, two new generators, and a new 12kV utility feed, the existing PGWWTP is currently served by RFD and expansion of the electrical infrastructure is not expected to increase the demand for fire services or reduce the response times. Diesel fuel, which would be stored on-site, is a volatile substance. However, diesel fuel is currently stored on-site, and the 15,000-gallon storage tanks would be designed with safety features including the double-walled steel exterior. The project would not require additional employees to operate or maintain. In addition, the project would not cause an increase in population that would require increased staffing of the RFD. Therefore, the project would not increase the demand for fire protection services or increase the response times for RFD. Therefore, the project would have a less-than-significant impact on fire protection services, and no mitigation is required.

Police protection?

No impact. The PGWWTP would continue to be served by RPD. Several new structures would be constructed within and adjacent to the PGWWTP property; however, the project would not require additional employees to operate or maintain. The project would not increase the population in the project vicinity, such that additional police services would be needed. Therefore, the project would have no impact on police services, and no mitigation is required.

Schools?

No impact. The project would be within and adjacent to the existing PGWWTP property and the nearest school to the nearest project element is West Park High School, located approximately 850 feet to the east. West Park High School is accessible from the east via Harden Parkway; therefore, project construction along Westpark Drive would not interfere with emergency access to the school. In addition, the project would not increase the population in the project vicinity, such that additional schools would be needed. Therefore, the project would not impact schools, and no mitigation is required.

Parks?

No impact. The project would be within and adjacent to the existing PGWWTP property and the nearest park facility is Pistachio Regional Park, located approximately 140 feet south of the nearest project element. Pistachio Regional Park is a 45-acre park that provides a baseball field, two softball fields, and trail access (City of Roseville 2026b). The proposed facilities would be within and adjacent to the existing PGWWTP property and would have no direct effect on parks or the adjacent open space areas. The project would also not generate new population. Therefore, the project would not require the construction of new parks or other public facilities or alterations to existing facilities to maintain performance objectives. Therefore, no impact on parks would occur, and no mitigation is required.

Other public facilities?

Less-than-significant impact. The project would include expansion of the electrical system at the existing PGWWTP, which is a public facility. Potential impacts associated with expansion of the electrical system is the subject of this Initial Study, and no additional significant environmental impacts are expected. In addition, the project would not result in an increase in population in the project vicinity that would increase the demand for other public facilities, such as libraries and community centers. Therefore, the project would have a less-than-significant impact on public facilities, and no mitigation is required.

3.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI.Recreation.				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Environmental Setting

The project area is located within the existing PGWWTP boundary and immediately south of the existing PGWWTP footprint and is designated as Public/Quasi Public. There are no recreation facilities within the project area. The nearest park facility is Pistachio Regional Park, located approximately 140 feet south of the nearest project element. Pistachio Regional Park is a 45-acre joint-use city-wide park that provides a baseball field, two softball fields, and trail access (City of Roseville 2026b). The Placer Valley Soccer Complex is also located immediately west of the PGWWTP and includes 10 synthetic turf soccer fields, a playground, and walking trail.

3.16.2 Discussion

- a) **Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

No impact. The project would not increase the population or housing in the project vicinity. Therefore, use of existing neighborhood and regional parks or other recreational facilities would not change as a result of the project. Because the project would not result in the physical deterioration of public recreational facilities, no impact would occur, and no mitigation is required.

- b) **Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

No impact. The project would not require additional employees to operate and maintain new facilities during operations and would not increase the population in the project vicinity. Therefore, the project would not require construction of new homes or infrastructure, including parks and recreational facilities. No impact would occur, and no mitigation is required.

3.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation.				
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

3.17.1 Environmental Setting

ROADWAY NETWORK

The primary state highways and local roadways in the vicinity of the project area are described as follows:

- ▶ **State Route (SR) 65** is a north-south highway that passes through multiple counties, including Placer County, where it runs through the City of Roseville. Within the city, SR 65 serves as a crucial transportation corridor, linking the city to Interstate-80 (I-80), Lincoln, and Yuba County. Within the city, SR 65 is typically a four-lane roadway with a posted speed limit of 65 miles per hour. There are no bicycle or pedestrian facilities along this roadway.
- ▶ **Westbrook Boulevard** is a north-south arterial that begins north of Blue Oaks Boulevard and extends to Pleasant Grove Boulevard. There are Class II bicycle facilities and sidewalks along segments of both sides of Westbrook Boulevard.
- ▶ **Blue Oaks Boulevard** is a major east-west arterial that connects the cities of Roseville and Rocklin. It begins at Westbrook Boulevard in western Roseville and extends approximately 6.5 miles, terminating at Sunset Boulevard in Rocklin. There are Class II bicycle lanes along segments of Blue Oaks Boulevard.
- ▶ **Westpark Drive** is a bidirectional local roadway that intersects Blue Oaks Boulevard at its northern terminus and Bob Doyle Drive at its southern terminus. There are Class II bicycle lanes and sidewalks along both sides of Westpark Drive between Bickleigh Loop and Bob Doyle Drive. There are also crosswalks at the Westpark Drive/Bickleigh Loop and Westpark Drive/Bob Doyle Drive intersections.

Truck Routes

Within the City of Roseville, there are two types of truck routes: Surface Transportation Assistance Act (STAA) routes and local routes (City of Roseville 2021). STAA routes allow large trucks to operate on the interstate freeway system and certain primary routes. Westbrook Boulevard, Blue Oaks Boulevard, and Westpark Drive are classified as existing STAA truck routes.

TRANSIT SYSTEM

Roseville Transit provides fixed-route local and commuter bus service, a public Dial-A-Ride reservation bus service, and complimentary Americans with Disabilities paratransit service in the City of Roseville. Roseville Transit also collaborates with regional transit agencies, such as Placer County Transit and Sacramento Regional Transit to provide seamless regional travel options for commuters. Roseville Transit provides bus service along Blue Oaks Boulevard north of the project area. There is no transit service to the project site. The project area is not adjacent to any existing public transit service facilities. The nearest bus stop is located approximately 1.3 miles southeast of the project area at Pleasant Grove Boulevard and Rothbury Lane and serves Route M (City of Roseville 2022).

BICYCLE AND PEDESTRIAN SYSTEM

The active transportation network in the City is composed of shared-use paths, bikeways, bicycle lanes, and bicycle routes. The City Active Transportation Plan classifies bicycle facilities into the following types (City of Roseville 2025: 51):

- ▶ Class I Shared-Use Paths/Multi-Use Trails: Paths completely separated from motor vehicle traffic for the exclusive use of bicycles and pedestrians with crossflows by motorists minimized. Class I paths often follow natural amenities such as creeks, drainage, or utility line easements.
- ▶ Class IA Paths: Parallel widened sidewalk routes along major roadways that are separated from the roadway by a landscape strip.
- ▶ Class II Bike Lanes: A restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles, prohibiting through-travel by motor vehicles or pedestrians but permitting crossflows by pedestrians and motorists.
- ▶ Class IIB Buffered Bike Lanes: Striped lanes for people biking with a striped "buffer" area of paint either between the bike lane and the travel lane, between the bike lane and parked cars, or both.
- ▶ Class III Bike Routes: Streets with signs and/or permanent markings that indicate people biking share the travel lane with motor vehicles.
- ▶ Class IIIB Bicycle Boulevards: Signed routes for people biking on local neighborhood roadways, where lanes are shared with motorists. What separates bicycle boulevards from a Class III bike route is the inclusion of traffic calming features or other treatments to prioritize comfort for people biking and deliberately slow vehicles down or reduce vehicle volumes.
- ▶ Class IV Separated Bike Lanes: A separated bikeway is for the exclusive use of bicycles and includes a physical vertical barrier between the separated bikeway and motor vehicle lanes. The barrier may include bollards, flex posts, curbs, planted medians, or parked cars.

As of 2025, the City bicycle system was comprised of approximately 51 miles of Class I multi-use trails, 111 miles of Class II bike lanes, and 12 miles of Class III bike routes (City of Roseville 2025: 29). There are no existing bicycle facilities within 0.25 miles of the project area. The nearest bicycle facilities are Class II bike lanes along Westpark Drive between Bickleigh Loop and Bob Doyle Drive. There are sidewalks located along the eastern/northern side of Westpark Drive that begin between Pistachio Park and Bob Doyle Drive and sidewalks along the southern side of Westpark Drive between Bickleigh Loop and Bob Doyle Drive.

COLLISION HISTORY

An analysis of collision history in the project area was conducted based on the most recent 5 years of data covering fatal and injury crashes in Placer County near the project area. The crash data spans from January 1, 2019 to December 31, 2023, and was obtained from the Transportation Injury Mapping System (TIMS), which is maintained by the University of California, Berkeley. Although 2024 and 2025 data is available on the TIMS database, it is provisional and subject to change (UC Berkeley 2026). Therefore, only data from 2019 to 2023 was used in this collision history analysis. There was one reported collision along Westpark Drive between January 1, 2019, and December 31, 2023. The collision occurred in 2021 at the intersection of Westpark Drive and Bob Doyle Drive, approximately 0.5 miles

southeast of the project area and was reported as a head-on collision between a passenger vehicle and a bicyclist (UC Berkeley 2026).

3.17.2 Discussion

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less-than-significant impact. Implementation of the project would not involve the construction or modification of any new or existing roadways. Therefore, the project would not permanently alter the surrounding physical transportation network such that existing or planned bicycle, pedestrian, or transit facilities would be permanently adversely affected. In addition, the project is not a land use development project that would result in increased demand for pedestrian, bicycle, or transit facilities, as there would be no operational activity associated with the project that would generate such trips. Construction of the new 12 kV utility feed from Westpark Drive to Electrical Building No. 3 could require temporary lane closures along Westpark Drive. There are no transit or bicycle facilities present along the segment of Westpark Road within which construction activity would occur. However, there is a sidewalk along the eastern side of Westpark Road adjacent to where a new 12 kV utility feed would be constructed; thus, potential roadway closures could temporarily affect sidewalk access. The construction contractor would be required to obtain an encroachment permit for any work within the public right-of-way pursuant to Section 13.28.010 of the City Municipal Code. The construction contractor would adhere to encroachment permit conditions including requirements for traffic control measures that minimize disruptions to the circulation system and provide for the efficient movement of all roadway users. For these reasons, the project would not adversely affect an existing or recommended roadway, transit, bicycle, or pedestrian facility. This impact would be less than significant, and no mitigation is required.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

Less-than-significant impact. The City of Roseville Design and Construction Standards VMT screening criteria establishes that small projects that generate 110 trips per day or less are screened from further VMT analysis (City of Roseville 2023a). Construction activities associated with implementation of the project would not result in long-term increases in construction vehicular trips along roadways in the project vicinity because construction would be intermittent and temporary. In addition, the VMT of construction personnel is not newly generated; instead, it is redistributed throughout the regional roadway network based on the different work sites to which workers travel each day. Therefore, construction personnel are not substantially generating new VMT each day, only redistributing it, and this redistribution would be nominal and temporary. The number of construction workers would vary by construction phase but an estimated 20 workers are expected to be onsite at any given time. This analysis assumes that construction personnel would not carpool and would generate two trips per worker per day. Therefore, under this scenario, construction workers would generate 40 average daily trips during construction, which would be below the City screening criteria of 110 daily trips for small projects. As detailed in Section 2.5.5 of Chapter 2, "Project Description," operation and maintenance of the project would be similar to that of existing conditions and would not require additional employees. Because the project is not a land use development that would result in population or employment growth, the number of daily trips associated with operational and maintenance activities is not expected to substantially increase VMT. Therefore, the project would be consistent with the City VMT screening criteria for small projects because it would generate fewer than 110 daily new trips during operations. For these reasons, the project would not conflict or be inconsistent with State CEQA Guidelines Section 15064.3. This impact would be less than significant, and no mitigation is required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less-than-significant impact. Project construction activities would require hauling of heavy equipment (e.g., excavator, backhoe, crane) to the project area and operation of haul/delivery trucks on the surrounding roadway network. Roadways that would be used to access the project area (i.e., Westbrook Boulevard, Blue Oaks Boulevard,

and Westpark Drive) are designated as STAA truck routes in the vicinity of the project area (City of Roseville 2023a). Thus, the use of heavy-duty construction equipment on the roadway network would not be considered an incompatible use. Although most project construction would occur within the existing PGWWTP boundary, the new 12 kV utility feed would be installed from Westpark Drive to Electrical Building No. 3.

The construction contractor would be required to obtain an encroachment permit for any construction work that would occur within the public right-of-way pursuant to Section 13.28.010 of the City Municipal Code. Any lane closures would be implemented in accordance with the City Design and Construction Standards, which contain specific requirements that are intended to provide safe access to property. Section 12 of the Construction Standards establishes requirements for construction area traffic control (e.g., traffic control hours, changeable message signs) including that traffic control within the public right-of-way requires an encroachment permit (City of Roseville 2023a). The general conditions placed on an encroachment permit include that traffic control must be implemented in accordance with the latest version of the California Manual of Uniform Traffic Control Devices (CA-MUTCD) (City of Roseville n.d.). The CA-MUTCD identifies the necessary traffic-control devices (e.g., signs, barricades, object markers, pavement and curb markings, pedestrian control signs, and flagger control) in and near construction work areas on public streets to minimize transportation hazards. Preparation of a traffic control plan that complies with the CA-MUTCD would ensure the safety of roadway users and would allow for the safe and efficient movement of all modes of travel. Therefore, construction would not substantially increase transportation hazards.

Project operation and maintenance activities would be similar to or less than existing maintenance and the types of vehicles accessing the project area during construction would be consistent with those under existing conditions. As detailed in Section 3.17.1, "Environmental Setting," there have been no collisions along Westpark Drive within 0.5 miles of the project area; the nearest collision occurred at the intersection of Westpark Drive and Bob Doyle Drive and did not involve a heavy-duty vehicle. Because operation and maintenance activity would be similar to that under existing conditions, the project would not result in increased transportation hazards. For these reasons, implementation of the project would not substantially increase hazards due to a design feature or incompatible use. This impact would be less than significant, and no mitigation is required.

d) Result in inadequate emergency access?

Less-than-significant impact. Construction of the project would include the implementation of approximately 1,700 feet of new utility line from Westpark Drive to Electrical Building No. 3. As discussed under Impact 3.17.2c above, pursuant to Section 13.28.010 of the City Municipal Code, the construction contractor would be required to obtain an encroachment permit for any construction work that would occur within the public right-of-way. Applications for encroachment permits, including traffic control plans, would be reviewed by City engineering and land development staff to ensure that construction within the public right-of-way would not result in inadequate emergency access. Furthermore, in accordance with the general provisions for an encroachment permit, if construction requires closure of traffic lanes, and if such closures are approved by the City Engineer, the City is required to notify the Roseville Fire Department at least 48 hours prior to the roadway closure (City of Roseville n.d.). The project would be required to adhere to these regulations as well as other applicable emergency access requirements included in the California Fire Code, as adopted by reference in Section 16.16.020 of the City Municipal Code. Therefore, the project would not result in inadequate emergency access during construction.

The project would be designed and constructed in accordance with City design standards and the California Fire Code as adopted by reference in Section 16.16.020 of the Municipal Code. The California Fire Code includes design standards for fire apparatus access (e.g., turning radii, minimum widths) and other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. In addition, pursuant to the Roseville Fire Department Life and Safety Standards, emergency access plans are required to be submitted for review as part of the civil improvement package (City of Roseville 2023b). The Roseville Fire Department would review compliance with City standards related to emergency access, thus ensuring that the new electrical building and other project components would provide adequate emergency access. For these reasons, implementation of the project would not result in inadequate emergency access during construction or operations. This impact would be less than significant, and no mitigation is required.

3.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?	☒ Yes		☐ No	
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

3.18.1 Environmental Setting

This section focuses on the contemporary tribal communities and Tribal cultural resources as they pertain to AB 52. This section analyzes and evaluates the potential impacts of the project on Tribal cultural resources, both identified and undiscovered. Tribal cultural resources, as defined by AB 52, Statutes of 2014, in PRC Section 21074, are sites, features, places, cultural landscapes, sacred places and objects, with cultural value to a Tribe. A Tribal cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

The proposed project area is situated within the lands traditionally occupied by the Valley Nisenan, or Southern Maidu. Many descendants of Valley Nisenan throughout the larger Sacramento region belong to the United Auburn Indian Community, Shingle Springs, Lone Band, Colfax-Todds Valley, and Wilton Rancheria Tribes. The Tribes actively participate in the identification, evaluation, preservation, and restoration of Tribal cultural resources.

AB 52, signed by the California Governor in September of 2014, established a new class of resources under CEQA: "tribal cultural resources," defined in PRC Section 21074. Pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation before the release of an EIR, negative declaration, or mitigated negative declaration.

On February 25 2026, the City sent notification letters that the project was being addressed under CEQA, as required by PRC 21080.3.1, to the Native American tribes that had previously requested such notifications. Notifications were sent to 16 Tribal representatives from the Colfax-Todds Valley Consolidated Tribe, Nevada City Rancheria Nisenan Tribe, Shingle Springs Band of Miwok Indians, TSI-AKIM Maidu of the Taylorsville Rancheria, United Auburn Indian

Community of the Auburn Rancheria, and Wilton Rancheria. United Auburn Indian Community declined to consult but provided a mitigation measure for Tribal cultural resources. This mitigation measure has been incorporated below.

Wilton Rancheria requested consultation and met with City staff via video conference in June 2026 to discuss project details. Wilton Rancheria requested, and was provided with, detailed project plans for review. In August 2026, Wilton Rancheria stated that they had no further concerns with the project and requested that the City include mitigation for an inadvertent discovery plan and language requiring notification to and consultation with Wilton Rancheria if any Tribal cultural materials are found during project activities. The City agreed to this request. The mitigation measure provided by United Auburn Indian Community and included below fulfills this request, and AB 52 consultation was closed in August 2026. No other tribes have requested consultation.

3.18.2 Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a) **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?**

No impact. The project area contains no Tribal cultural resources that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources. There would be no impact, and no mitigation is required.

- b) **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?**

Less-than-significant impact with mitigation incorporated. As described above, the City sent AB 52 notifications letters to 16 tribal representatives from six Native American Tribes. Wilton Rancheria requested consultation, met with City staff, and agreed to close consultation in August 2026 with the inclusion of an inadvertent discovery mitigation measure. United Auburn Indian Community declined to consult but provided a mitigation measure for Tribal cultural resources. This mitigation measure has been incorporated below. No other Tribes have requested consultation. There is potential for ground disturbance activities during project construction to encounter previously undiscovered Tribal cultural resources. These activities could damage or destroy Tribal cultural resources, and this would be a potentially significant impact.

Mitigation Measures

Mitigation Measure 3.18-1: Unanticipated Discovery of Tribal Cultural Resources

If any suspected Tribal cultural resources or resources of cultural significance, including but not limited to features, anthropogenic/cultural soils, cultural belongings or objects (artifacts), shell, bone, shaped stones or bone, or ash/charcoal deposits are discovered by any person during construction activities including ground disturbing activities, all work shall pause immediately within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. Work shall cease in and within the immediate vicinity of the find regardless of whether the construction is being actively monitored by a Tribal Monitor, cultural resources specialist, or professional archaeologist.

A Tribal Representative and the City shall be immediately notified, and the Tribal Representative in coordination with the City shall determine if the find is a Tribal cultural resource (PRC Section 21074) and the Tribal Representative shall make recommendations for further evaluation and treatment as necessary.

Treatment and Documentation

The culturally affiliated Tribe shall consult with the City to (1) identify the boundaries of the new Tribal cultural resource and (2) if feasible, identify appropriate preservation in place and avoidance measures, including redesign or adjustments to the existing construction process, and long-term management, or 3) if avoidance is infeasible, a reburial location in proximity of the find where no future disturbance is anticipated. Permanent curation of Tribal cultural resources will not take place unless approved in writing by the culturally affiliated Tribe.

The construction contractor(s) shall provide secure, on-site storage for culturally sensitive soils or objects that are components of TCRs that are found or recovered during construction. Only Tribal Representatives shall have access to the storage. Storage size shall be determined by the nature of the Tribal cultural resource and can range from a small lock box to a conex box (shipping container). A secure (locked), fenced area can also provide adequate on-site storage if larger amounts of material must be stored.

The construction contractor(s) and the City shall facilitate the respectful reburial of the culturally sensitive soils or objects. This includes providing a reburial location that is consistent with the Tribe's preferences, excavation of the reburial location, and assisting with the reburial, upon request. Any discoveries shall be documented on a Department of Parks and Recreation 523 form within 2 weeks of the discovery and submitted to the appropriate CHRIS center in a timely manner. Work at the Tribal cultural resource discovery location shall not resume until authorization is granted by the City in coordination with the culturally affiliated Tribe.

If articulated or disarticulated human remains, or human remains in any state of decomposition or skeletal completeness are discovered during construction activities, the Placer County Coroner and the culturally affiliated Tribe shall be contacted immediately. Upon determination by the Placer County Coroner that the find is Native American in origin, the Native American Heritage Commission will assign the Most Likely Descendent who will work with the project proponent to define appropriate treatment and disposition of the burials.

Significance after Mitigation

Implementation of Mitigation Measures 3.18-1 would reduce impacts associated with Tribal cultural resources to a less-than-significant level by requiring appropriate treatment and proper care of significant Tribal cultural resources, in the case of a discovery.

3.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems.				
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Environmental Setting

WATER

The City of Roseville Environmental Utilities is responsible for water services within the city limits, including the project area, with the exception of a few small areas of the city that are served by Placer County Water Agency (PCWA), San Juan Water District (SJWD), and Citrus Heights Water District. The primary source of water is the Central Valley Project, which is owned and operated by the US Bureau of Reclamation (USBR). The City also has contracts with (PCWA) and San Juan Water District (SJWD) for municipal and industrial water supply within the City. Groundwater is used by the City as a backup water supply and recycled water is used for irrigation, industrial, and construction uses.

The City's primary surface water supply is American River water diverted from Folsom Lake. Surface water is delivered from Folsom Lake via USBR facilities through a pumping plant and parallel 48-inch and 60-inch transmission lines to the City's Water Treatment Plant on Barton Road in Granite Bay. The City has contracts for 66,000 acre-feet per year (af/yr) of surface water through contracts with the USBR, PCWA, and SJWD. However, the City is a signatory to the Water Forum Agreement, which limits diversions from the American River (City of Roseville 2016).

The PGWWTP has three existing water systems: potable, nonpotable, and utility. The existing potable water system at the PGWWTP is supplied by a connection to the City's potable water distribution system. Potable water at the PGWWTP is currently used for drinking, sanitary facilities, restrooms, emergency eyewash, and shower stations. Nonpotable water is only used for pump seals. Utility water is used for all WWTP processes except pump seals, restrooms, and the lab. It supplies fire hydrants, all process sprays, hose stations, and centrifuge polymer dilution and wash-down water.

Water for landscaping irrigation at the PGWWTP is recycled water generated on-site. The PGWWTP also supplies recycled to the City's recycled water distribution system. Recycled water is used within the city for irrigation, industrial cooling, and in some instances to support construction activity.

WASTEWATER

The primary purpose of the existing PGWWTP is wastewater treatment, including wastewater generated on-site. In 2021, the PGWWTP Expansion and Energy Recovery Projects were completed, expanding the treatment capacity of the PGWWTP from 9.5 mgd ADWF to 12 mgd ADWF. The PGWWTP presently treats 8.95 mgd ADWF. A description of the existing and proposed wastewater treatment processes and facilities are provided in Section 2.1 in Chapter 2, "Project Description."

STORMWATER

Within the city, the stormwater drainage system consists of surface runoff to streets, subsurface storm drainage pipelines, canals, and retention basins. Stormwater collection facilities for the PGWWTP collect all runoff from impervious surfaces on-site, which is then retained in an on-site in the stormwater pond and treated on-site when there is available capacity.

SOLID WASTE

Solid waste generated within the City, including the PGWWTP, is collected and hauled by the City to the Materials Recovery Facility (MRF) and the Western Regional Sanitation Landfill (WRSL), located at the corner of Athens Avenue and Fiddymont Road in Placer County. The WRSL is owned and operated by the Western Placer Waste Management Authority (WPWMA) for processing and disposal. Solid waste generated within the City limits is delivered to the MRF, which separates, processes, and markets recyclable materials, prior to disposal of the waste at the WRSL.

The WRSL is a Class II/III municipal solid waste (non-hazardous) landfill that is currently estimated to reach the end of its life in 2058. The WRSL is permitted to accept 1,900 tons of solid waste per day and has a total capacity of 36,350,000 cy (CalRecycle 2026). As of June 2020, it has an estimated remaining capacity of approximately 23.2 million cy (CalRecycle 2026).

ELECTRICITY

Roseville Electric provides electrical service to customers within the City, including the PGWWTP. Roseville Electric purchases electricity from the Western Area Power Agency and the Northern California Power Agency, which acquire electricity from various sources. There are currently two electrical buildings at the PGWWTP and electricity is provided via a 12-kV line. The existing PGWWTP is also served by two 1,750 kilowatt (kW) standby generators with a combined capacity of 3,640 kW. The existing generators do not have sufficient capacity for the PGWWTP without load shedding equipment based on priorities set by operations in supervisory control and data acquisition (SCADA).

In 2021, the PGWWTP Expansion and Energy Recovery Projects expanded treatment capacity and added an energy recovery facility that converts biogas from the wastewater treatment process to produce electricity and compressed natural gas to fuel the City's garbage truck fleet. The City identified that upon completion of the Expansion and Energy Recovery Projects, the electrical capacity of the PGWWTP, and the standby generation capacity would be exceeded triggering the need for an expansion of the electrical power system. The proposed project would address the need for an electrical system expansion at the PGWWTP.

3.19.2 Discussion

- a) **Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?**

Less-than-significant impact. The primary purpose of the project is to consolidate and expand the PGWWTP electrical supply from Roseville Electric and PGWWTP's emergency generators into a single expandable facility. This expansion would address the need for an electrical system expansion at the PGWWTP. The proposed WWTP electrical expansion would be designed to meet expanded capacity needs and the City's growing wastewater treatment demands through establishing a redundant electrical feed from Roseville Electric and upgrading the generator facility. The project involves expansion of on-site electric power facilities and stormwater drainage and the environmental impacts associated with these expanded facilities are analyzed throughout this document. In addition, the proposed improvements would not require or result in the relocation or construction of new or expanded natural gas or telecommunications facilities or additional facilities off-site. Construction and operation of the project is not expected to generate additional wastewater that would exceed the requirements of the existing RWQCB permit for the PGWWTP. Based on the analysis of this Initial Study, the proposed improvements would not result in significant impacts with mitigation incorporated. Impacts would be less than significant, and no further mitigation is required.

- b) **Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

Less-than-significant impact. Operation of the proposed project would not increase demand for water. Water may be used during construction for dust suppression; however, the water used for dust suppression would be short-term and minimal. This impact would be less than significant, and no mitigation is required.

- c) **Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?**

No impact. The proposed project would consolidate and expand the PGWWTP electrical supply into a single expandable facility to support wastewater treatment operations within the PGWWTP. The proposed improvements would not increase the population, nor would they generate new wastewater treatment demand. There would be no impact, and no mitigation is required.

- d) **Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

Less-than-significant impact. Currently, solid waste, including dewatered waste activated sludge, from the PGWWTP is hauled to WRS. The WRS (31-AA-0210) is permitted through 2058 with a maximum permitted capacity of 36,350,000 cy per day, and an estimated remaining capacity of approximately 23.2 million cy (CalRecycle 2026). Construction of the project would involve site clearing, grading, and excavation and would remove vegetation in the project footprint including up to 20 ornamental trees. The project would not require demolition of any structures, and solid waste generated during construction is expected to be minimal. Operation of the project would not require additional employees to operate and maintain the new facilities. Routine maintenance would be similar to or less than existing maintenance and would occur for all new facilities and would not generate excess solid waste compared to existing quantities. In addition, the WRS has sufficient remaining capacity to accommodate the minimal amounts of solid waste generated during project construction. Therefore, implementation of the project would not generate solid waste in excess of the capacity of local infrastructure or impair the attainment of solid waste reduction goals. This impact would be less than significant, and no mitigation is required.

e) **Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

Less-than-significant impact. As previously discussed, project construction would generate construction and excavation debris, from site clearing, grading, excavation, which would generate minimal amounts of soil waste. Solid waste would be hauled off and disposed of in accordance with state and local regulations to the WRSL. As discussed in Impact 3.19.2d above, the WRSL would have sufficient remaining capacity to accommodate the solid waste generated during construction. Operation of the project would not require additional employees to operate and maintain the new facilities. As discussed above, maintenance would be similar to or less than existing maintenance and would occur for all new facilities and would not generate excess solid waste compared to existing quantities. Implementation of the proposed project would not generate solid waste in excess demand of state or local standards, negatively impact the provision of solid waste services, or conflict with federal, state, and local management and reduction statutes. This impact would be less than significant, and no mitigation is required.

3.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX.Wildfire.				
Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?	☐ Yes ☒ No			
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

3.20.1 Environmental Setting

The project area is not located in a State Responsibility Area (SRA) and is not located within a designated very high FHSZ identified by CAL FIRE. The nearest very high FHSZ in SRA is located approximately 12 miles to the east of the PGWWTP (CAL FIRE 2026). The project area is located within the LRA, meaning the financial responsibility of preventing and suppressing wildfires is primarily the responsibility of a local agency (city, county, city and county, or district) (OSFM 2026). The Roseville Fire Department has jurisdiction over the project area. The project area is mostly located in an area designated as having no FHSZ (non-wildland) and partially located within a designated moderate FHSZ (City of Roseville 2025). The immediate project vicinity is dominated by annual grassland, with trees bordering the project area.

3.20.2 Discussion

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No impact. See Section 3.9, “Hazards and Hazardous Materials” Impact 3.9.2f. There would be no impact, and no mitigation is required.

- b) **Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

No impact. The project would not exacerbate wildfire risks or include construction of structures that would be inhabited. In addition, the project area is generally flat and is not located within a very high FHSZ. Therefore, the project would not exacerbate wildfire risks in the project area, and no mitigation is required.

- c) **Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

Less-than-significant impact. The immediate project vicinity includes mixed-use development and annual grassland, with trees bordering the project area. Activities associated with construction, including the use of vehicles and other equipment could result in ignition sparks, but contractors would be trained to execute work in a manner that is safe with respect to fire hazards, and fire suppression equipment would be readily available at the construction site. Project area.

Existing regulations, such as the CBC and California Fire Code, would reduce risks to people and structures associated with wildland fires. The new facilities would be constructed in accordance with the CBC, which provides minimum standards for building design in California. The project area is designated as no FHSZ and partially as moderate FHSZ, and the nearest very high FHSZ in an SRA is located approximately 12 miles to the east (OSFM 2026). Therefore, the potential for the project to exacerbate fire risk is unlikely. Therefore, this impact would be less than significant, and no mitigation is required.

- d) **Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

Less-than-significant impact. The project is in an area of flat terrain and would not involve the changing of slopes that could expose people to risks of flooding from post-fire slope instability. The project involves consolidating the stormwater collection to the PGWWTP drain system on the southern end of the project area to prevent on-site flooding. Project construction would not result in substantial runoff or drainage changes that would expose people or structures to significant risks. Therefore, this impact would be less than significant, and no mitigation is required.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Mandatory Findings of Significance.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.21.1 Environmental Setting

3.21.2 Discussion

- a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less-than-significant impact with mitigation incorporated. As discussed in the biological resources and cultural resources sections of this Initial Study, the project would result in potentially significant impacts and could degrade the quality of the environment. However, adoption and implementation of mitigation measures described in this Initial Study would reduce these individual impacts to less-than-significant levels.

The project area provides potentially suitable habitat for special-status birds and raptors, Crotch's bumble bee, monarch, and western spadefoot, which could be affected by the project. However, implementation of Mitigation Measures 3.4-1 through 3.4-4 would reduce potential impacts on these sensitive biological resources to a less-than-significant level by requiring preconstruction surveys, maintaining buffers, and providing mitigation for sensitive resources that cannot be avoided.

No historical resources have been identified on-site, and the project would have no impact on historical resources. Although no documented archaeological resources are currently located within the project area, the potential exists to encounter previously undiscovered archaeological resources during construction-related ground disturbing activities. However, adoption and implementation of Mitigation Measure 3.5-1 would reduce this potential impact to a less-than-significant level because this measure would require implementation of preservation options and proper curation if significant artifacts are recovered.

Although there are no known tribal cultural resources within the project area, it is possible that yet-undiscovered tribal cultural resources could be encountered or damaged during ground-disturbing construction activities. Implementation of Mitigation Measure 3.18-1 would reduce impacts to tribal cultural resources to a less-than-significant level by requiring appropriate treatment and proper care of significant tribal cultural resources, in the case of a discovery.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

Less-than-significant impact with mitigation incorporated. Cumulative environmental effects are multiple individual effects that, when considered together, would be considerable or compound or increase other environmental impacts. Individual effects may result from a single project or a number of separate projects and may occur at the same place and point in time or at different locations and over extended periods of time. The purpose of the project is to upgrade the electrical system at the existing PGWWTP. The project would not increase population growth either directly or indirectly beyond what has been planned for in the City of Roseville General Plan or West Roseville Specific Plan. Implementation of the mitigation measures proposed in this Initial Study would reduce the project’s impacts to a less-than-significant level. The project’s contribution to environmental impacts would be less than cumulatively considerable.

- c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?**

Less-than-significant impact with mitigation incorporated. As identified in this Initial Study, the project could have impacts associated with biological resources, cultural resources, and tribal cultural resources. Impacts on biological resources, cultural resources, and tribal cultural resources would not directly affect human beings, and all impacts would be temporary and would be mitigated to a less-than-significant level. Therefore, implementation of the proposed project would not result in substantial adverse effects on human beings, either directly or indirectly. With implementation of mitigation, this impact would be less than significant.

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Appendix A

Air Quality, Greenhouse Gas, and
Energy Calculations

PGWWTP Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	PGWWTP
Construction Start Date	4/1/2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50000
Precipitation (days)	7.80000
Location	38.78780017121943, -121.38105103889123
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	432
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.37

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Light Industry	17.0000	1000sqft	0.39027	17,000.0	0.00000	—	—	—
Road Widening	0.32200	Mile	0.78000	0.00000	0.00000	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.85366	6.69158	34.2639	48.2031	0.09075	1.30488	3.14582	3.82328	1.20060	1.39942	2.02269	—	10,015.5	10,015.5	0.39002	0.09485	1.47033	10,054.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.92672	5.90503	34.2913	47.6559	0.09075	1.30488	1.92655	3.23143	1.20060	0.26975	1.47035	—	9,960.79	9,960.79	0.39199	0.10893	0.03810	10,003.1
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.37150	1.99560	16.1019	22.2227	0.04189	0.61128	0.94157	1.55285	0.56244	0.15779	0.72023	—	4,590.98	4,590.98	0.17985	0.04409	0.29807	4,608.91
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.43280	0.36420	2.93860	4.05565	0.00764	0.11156	0.17184	0.28340	0.10265	0.02880	0.13144	—	760.089	760.089	0.02978	0.00730	0.04935	763.058

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	5.10068	4.28333	34.2639	48.2031	0.09075	1.30488	3.14582	3.82328	1.20060	1.39942	2.02269	—	10,015.5	10,015.5	0.39002	0.09485	1.47033	10,054.9

2029	6.85366	6.69158	21.2782	30.6767	0.05950	0.68858	0.96569	1.65427	0.63358	0.14879	0.78237	—	6,292.60	6,292.60	0.24383	0.07968	1.20160	6,317.69
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	5.07168	4.26742	34.2913	47.6559	0.09075	1.30488	1.92655	3.23143	1.20060	0.26975	1.47035	—	9,960.79	9,960.79	0.39199	0.10893	0.03810	10,003.1
2029	5.92672	5.90503	32.4152	47.3637	0.09074	1.18950	1.92655	3.11605	1.09446	0.26975	1.36420	—	9,949.22	9,949.22	0.39193	0.09411	0.03367	9,987.10
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	2.37150	1.99560	16.1019	22.2227	0.04189	0.61128	0.94157	1.55285	0.56244	0.15779	0.72023	—	4,590.98	4,590.98	0.17985	0.04409	0.29807	4,608.91
2029	1.77887	1.53855	10.3737	15.2098	0.02830	0.33915	0.44915	0.78830	0.31206	0.07122	0.38328	—	3,025.82	3,025.82	0.11794	0.02918	0.20642	3,037.67
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.43280	0.36420	2.93860	4.05565	0.00764	0.11156	0.17184	0.28340	0.10265	0.02880	0.13144	—	760.089	760.089	0.02978	0.00730	0.04935	763.058
2029	0.32464	0.28079	1.89320	2.77578	0.00516	0.06190	0.08197	0.14386	0.05695	0.01300	0.06995	—	500.959	500.959	0.01953	0.00483	0.03418	502.921

3. Construction Emissions Details

3.1. Site Preparation (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.39330	1.17076	10.0805	11.6080	0.01907	0.45283	—	0.45283	0.41661	—	0.41661	—	2,066.10	2,066.10	0.08381	0.01676	—	2,073.19
Dust From Material Movement	—	—	—	—	—	—	2.44278	2.44278	—	1.17148	1.17148	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01145	0.00962	0.08285	0.09541	0.00016	0.00372	—	0.00372	0.00342	—	0.00342	—	16.9816	16.9816	0.00069	0.00014	—	17.0399	
Dust From Material Movement	—	—	—	—	—	—	0.02008	0.02008	—	0.00963	0.00963	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00209	0.00176	0.01512	0.01741	0.00003	0.00068	—	0.00068	0.00062	—	0.00062	—	2.81150	2.81150	0.00011	0.00002	—	2.82115	
Dust From Material Movement	—	—	—	—	—	—	0.00366	0.00366	—	0.00176	0.00176	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02523	0.02237	0.01359	0.32954	0.00000	0.00000	0.07578	0.07578	0.00000	0.01776	0.01776	—	78.8999	78.8999	0.00099	0.00050	0.21403	79.2866	
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00017	0.00016	0.00013	0.00201	0.00000	0.00000	0.00062	0.00062	0.00000	0.00015	0.00015	—	0.58868	0.58868	0.00001	< 0.000005	0.00076	0.59089
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00003	0.00003	0.00002	0.00037	0.00000	0.00000	0.00011	0.00011	0.00000	0.00003	0.00003	—	0.09746	0.09746	< 0.000005	< 0.000005	0.00013	0.09783
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3. Grading (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.60969	1.35258	11.7838	13.9071	0.02268	0.51580	—	0.51580	0.47453	—	0.47453	—	2,456.26	2,456.26	0.09964	0.01993	—	2,464.69
Dust From Material Movement	—	—	—	—	—	—	2.76221	2.76221	—	1.33565	1.33565	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03087	0.02594	0.22599	0.26671	0.00043	0.00989	—	0.00989	0.00910	—	0.00910	—	47.1064	47.1064	0.00191	0.00038	—	47.2681
Dust From Material Movement	—	—	—	—	—	—	0.05297	0.05297	—	0.02562	0.02562	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00563	0.00473	0.04124	0.04867	0.00008	0.00181	—	0.00181	0.00166	—	0.00166	—	7.79901	7.79901	0.00032	0.00006	—	7.82577
Dust From Material Movement	—	—	—	—	—	—	0.00967	0.00967	—	0.00467	0.00467	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03364	0.02983	0.01812	0.43938	0.00000	0.00000	0.10103	0.10103	0.00000	0.02368	0.02368	—	105.200	105.200	0.00132	0.00066	0.28537	105.715
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00053	0.00051	0.00042	0.00627	0.00000	0.00000	0.00193	0.00193	0.00000	0.00045	0.00045	—	1.83145	1.83145	0.00003	0.00001	0.00236	1.83833
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00010	0.00009	0.00008	0.00114	0.00000	0.00000	0.00035	0.00035	0.00000	0.00008	0.00008	—	0.30322	0.30322	< 0.000005	< 0.000005	0.00039	0.30436
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11538	0.92809	7.88994	9.87597	0.01943	0.23087	—	0.23087	0.21240	—	0.21240	—	1,801.31	1,801.31	0.07307	0.01461	—	1,807.49
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11538	0.92809	7.88994	9.87597	0.01943	0.23087	—	0.23087	0.21240	—	0.21240	—	1,801.31	1,801.31	0.07307	0.01461	—	1,807.49
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56970	0.47403	4.02989	5.04428	0.00992	0.11792	—	0.11792	0.10849	—	0.10849	—	920.044	920.044	0.03732	0.00746	—	923.202
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10397	0.08651	0.73545	0.92058	0.00181	0.02152	—	0.02152	0.01980	—	0.01980	—	152.324	152.324	0.00618	0.00124	—	152.847
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02402	0.02130	0.01294	0.31372	0.00000	0.00000	0.07214	0.07214	0.00000	0.01691	0.01691	—	75.1127	75.1127	0.00094	0.00047	0.20375	75.4808
Vendor	0.00310	0.00225	0.09092	0.02483	0.00054	0.00108	0.02057	0.02165	0.00108	0.00568	0.00676	—	74.2223	74.2223	0.00072	0.01124	0.14455	77.7349
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01941	0.01878	0.01598	0.22593	0.00000	0.00000	0.07214	0.07214	0.00000	0.01691	0.01691	—	66.3584	66.3584	0.00126	0.00272	0.00528	67.2067
Vendor	0.00297	0.00213	0.09708	0.02600	0.00054	0.00108	0.02057	0.02165	0.00108	0.00568	0.00676	—	74.2675	74.2675	0.00072	0.01124	0.00375	77.6392
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00999	0.00975	0.00792	0.11915	0.00000	0.00000	0.03666	0.03666	0.00000	0.00859	0.00859	—	34.8263	34.8263	0.00056	0.00024	0.04488	34.9571
Vendor	0.00155	0.00115	0.04866	0.01296	0.00028	0.00055	0.01046	0.01101	0.00055	0.00289	0.00344	—	37.9197	37.9197	0.00037	0.00574	0.03186	39.6718
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00182	0.00178	0.00145	0.02175	0.00000	0.00000	0.00669	0.00669	0.00000	0.00157	0.00157	—	5.76589	5.76589	0.00009	0.00004	0.00743	5.78755
Vendor	0.00028	0.00021	0.00888	0.00237	0.00005	0.00010	0.00191	0.00201	0.00010	0.00053	0.00063	—	6.27804	6.27804	0.00006	0.00095	0.00528	6.56812
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07498	0.89452	7.62475	9.82021	0.01942	0.20969	—	0.20969	0.19291	—	0.19291	—	1,800.99	1,800.99	0.07306	0.01461	—	1,807.17
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07498	0.89452	7.62475	9.82021	0.01942	0.20969	—	0.20969	0.19291	—	0.19291	—	1,800.99	1,800.99	0.07306	0.01461	—	1,807.17
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47964	0.39912	3.40204	4.38162	0.00867	0.09356	—	0.09356	0.08608	—	0.08608	—	803.575	803.575	0.03260	0.00652	—	806.332
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08753	0.07284	0.62087	0.79965	0.00158	0.01707	—	0.01707	0.01571	—	0.01571	—	133.041	133.041	0.00540	0.00108	—	133.498
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02098	0.02067	0.01278	0.29769	0.00000	0.00000	0.07214	0.07214	0.00000	0.01691	0.01691	—	73.8028	73.8028	0.00094	0.00047	0.17961	74.1468
Vendor	0.00310	0.00225	0.08599	0.02429	0.00054	0.00108	0.02057	0.02165	0.00108	0.00568	0.00676	—	72.0471	72.0471	0.00072	0.01070	0.12677	75.3808
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01862	0.01815	0.01582	0.21540	0.00000	0.00000	0.07214	0.07214	0.00000	0.01691	0.01691	—	65.2079	65.2079	0.00126	0.00047	0.00467	65.3848
Vendor	0.00291	0.00213	0.09268	0.02533	0.00054	0.00108	0.02057	0.02165	0.00108	0.00568	0.00676	—	72.0952	72.0952	0.00072	0.01070	0.00330	75.3055
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00831	0.00810	0.00584	0.09873	0.00000	0.00000	0.03203	0.03203	0.00000	0.00750	0.00750	—	29.8943	29.8943	0.00049	0.00021	0.03461	30.0040
Vendor	0.00135	0.00100	0.04054	0.01106	0.00024	0.00048	0.00914	0.00962	0.00048	0.00253	0.00301	—	32.1553	32.1553	0.00032	0.00477	0.02449	33.6107
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00152	0.00148	0.00107	0.01802	0.00000	0.00000	0.00584	0.00584	0.00000	0.00137	0.00137	—	4.94934	4.94934	0.00008	0.00003	0.00573	4.96750
Vendor	0.00025	0.00018	0.00740	0.00202	0.00004	0.00009	0.00167	0.00176	0.00009	0.00046	0.00055	—	5.32368	5.32368	0.00005	0.00079	0.00405	5.56464
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9. Diesel Tank Installation Trips (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.01111	0.00807	0.30860	0.08717	0.00194	0.00388	0.07382	0.07770	0.00388	0.02039	0.02427	—	258.576	258.576	0.00260	0.03840	0.45498	270.541
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00003	0.00002	0.00089	0.00024	0.00001	0.00001	0.00020	0.00021	0.00001	0.00006	0.00007	—	0.70863	0.70863	0.00001	0.00011	0.00054	0.74070
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00001	< 0.000005	0.00016	0.00004	< 0.000005	< 0.000005	0.00004	0.00004	< 0.000005	0.00001	0.00001	—	0.11732	0.11732	< 0.000005	0.00002	0.00009	0.12263
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.11. Paving (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50607	0.42455	4.03419	6.48146	0.00940	0.13688	—	0.13688	0.12593	—	0.12593	—	991.087	991.087	0.04020	0.00804	—	994.488
Paving	0.12021	0.12021	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02357	0.01977	0.18789	0.30188	0.00044	0.00638	—	0.00638	0.00587	—	0.00587	—	46.1602	46.1602	0.00187	0.00037	—	46.3186
Paving	0.00560	0.00560	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.00430	0.00361	0.03429	0.05509	0.00008	0.00116	—	0.00116	0.00107	—	0.00107	—	7.64235	7.64235	0.00031	0.00006	—	7.66858
Paving	0.00102	0.00102	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03673	0.03618	0.02238	0.52117	0.00000	0.00000	0.12629	0.12629	0.00000	0.02960	0.02960	—	129.207	129.207	0.00165	0.00083	0.31445	129.809
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00152	0.00148	0.00107	0.01804	0.00000	0.00000	0.00585	0.00585	0.00000	0.00137	0.00137	—	5.46313	5.46313	0.00009	0.00004	0.00633	5.48318
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00028	0.00027	0.00019	0.00329	0.00000	0.00000	0.00107	0.00107	0.00000	0.00025	0.00025	—	0.90448	0.90448	0.00001	0.00001	0.00105	0.90780
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.13. Architectural Coating (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12385	0.10236	0.79416	1.11216	0.00173	0.01284	—	0.01284	0.01181	—	0.01181	—	133.510	133.510	0.00542	0.00108	—	133.968
Architectural Coatings	5.79542	5.79542	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12385	0.10236	0.79416	1.11216	0.00173	0.01284	—	0.01284	0.01181	—	0.01181	—	133.510	133.510	0.00542	0.00108	—	133.968
Architectural Coatings	5.79542	5.79542	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00577	0.00477	0.03699	0.05180	0.00008	0.00060	—	0.00060	0.00055	—	0.00055	—	6.21826	6.21826	0.00025	0.00005	—	6.23960
Architectural Coatings	0.26992	0.26992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00105	0.00087	0.00675	0.00945	0.00001	0.00011	—	0.00011	0.00010	—	0.00010	—	1.02950	1.02950	0.00004	0.00001	—	1.03304
Architectural Coatings	0.04926	0.04926	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00839	0.00827	0.00511	0.11908	0.00000	0.00000	0.02886	0.02886	0.00000	0.00676	0.00676	—	29.5211	29.5211	0.00038	0.00019	0.07185	29.6587
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00745	0.00726	0.00633	0.08616	0.00000	0.00000	0.02886	0.02886	0.00000	0.00676	0.00676	—	26.0832	26.0832	0.00050	0.00019	0.00187	26.1539
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00035	0.00034	0.00024	0.00412	0.00000	0.00000	0.00134	0.00134	0.00000	0.00031	0.00031	—	1.24822	1.24822	0.00002	0.00001	0.00145	1.25280
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00006	0.00006	0.00004	0.00075	0.00000	0.00000	0.00024	0.00024	0.00000	0.00006	0.00006	—	0.20666	0.20666	< 0.000005	< 0.000005	0.00024	0.20741
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000
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3.15. Grubbing and land clearing (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47750	0.40124	3.62960	4.45826	0.00584	0.16167	—	0.16167	0.14873	—	0.14873	—	632.270	632.270	0.02565	0.00513	—	634.439
Dust From Material Movement	—	—	—	—	—	—	0.20680	0.20680	—	0.02233	0.02233	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05102	0.04287	0.38782	0.47636	0.00062	0.01727	—	0.01727	0.01589	—	0.01589	—	67.5576	67.5576	0.00274	0.00055	—	67.7894
Dust From Material Movement	—	—	—	—	—	—	0.02210	0.02210	—	0.00239	0.00239	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.00931	0.00782	0.07078	0.08694	0.00011	0.00315	—	0.00315	0.00290	—	0.00290	—	11.1849	11.1849	0.00045	0.00009	—	11.2233
Dust From Material Movement	—	—	—	—	—	—	0.00403	0.00403	—	0.00044	0.00044	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02523	0.02237	0.01359	0.32954	0.00000	0.00000	0.07578	0.07578	0.00000	0.01776	0.01776	—	78.8999	78.8999	0.00099	0.00050	0.21403	79.2866
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00220	0.00214	0.00174	0.02618	0.00000	0.00000	0.00806	0.00806	0.00000	0.00189	0.00189	—	7.65284	7.65284	0.00012	0.00005	0.00986	7.68159
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00040	0.00039	0.00032	0.00478	0.00000	0.00000	0.00147	0.00147	0.00000	0.00034	0.00034	—	1.26701	1.26701	0.00002	0.00001	0.00163	1.27177
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.17. Grading and Excavation (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.83091	3.21903	26.1696	36.3320	0.07059	1.07254	—	1.07254	0.98674	—	0.98674	—	7,643.68	7,643.68	0.31006	0.06201	—	7,669.91
Dust From Material Movement	—	—	—	—	—	—	1.44758	1.44758	—	0.15631	0.15631	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.83091	3.21903	26.1696	36.3320	0.07059	1.07254	—	1.07254	0.98674	—	0.98674	—	7,643.68	7,643.68	0.31006	0.06201	—	7,669.91
Dust From Material Movement	—	—	—	—	—	—	1.44758	1.44758	—	0.15631	0.15631	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.64932	1.38588	11.2667	15.6420	0.03039	0.46176	—	0.46176	0.42482	—	0.42482	—	3,290.82	3,290.82	0.13349	0.02670	—	3,302.11
Dust From Material Movement	—	—	—	—	—	—	0.62323	0.62323	—	0.06729	0.06729	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30100	0.25292	2.05618	2.85466	0.00555	0.08427	—	0.08427	0.07753	—	0.07753	—	544.833	544.833	0.02210	0.00442	—	546.702
Dust From Material Movement	—	—	—	—	—	—	0.11374	0.11374	—	0.01228	0.01228	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12616	0.11186	0.06796	1.64768	0.00000	0.00000	0.37888	0.37888	0.00000	0.08881	0.08881	—	394.500	394.500	0.00496	0.00248	1.07014	396.433
Vendor	0.00111	0.00081	0.03263	0.00891	0.00019	0.00039	0.00738	0.00777	0.00039	0.00204	0.00243	—	26.6383	26.6383	0.00026	0.00403	0.05188	27.8990
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10194	0.09863	0.08391	1.18661	0.00000	0.00000	0.37888	0.37888	0.00000	0.08881	0.08881	—	348.521	348.521	0.00661	0.01430	0.02773	352.976
Vendor	0.00107	0.00076	0.03484	0.00933	0.00019	0.00039	0.00738	0.00777	0.00039	0.00204	0.00243	—	26.6545	26.6545	0.00026	0.00403	0.00135	27.8646
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04424	0.04317	0.03506	0.52749	0.00000	0.00000	0.16230	0.16230	0.00000	0.03803	0.03803	—	154.178	154.178	0.00249	0.00107	0.19870	154.757
Vendor	0.00047	0.00035	0.01472	0.00392	0.00008	0.00017	0.00316	0.00333	0.00017	0.00087	0.00104	—	11.4715	11.4715	0.00011	0.00174	0.00964	12.0015
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00807	0.00788	0.00640	0.09627	0.00000	0.00000	0.02962	0.02962	0.00000	0.00694	0.00694	—	25.5259	25.5259	0.00041	0.00018	0.03290	25.6218
Vendor	0.00009	0.00006	0.00269	0.00072	0.00002	0.00003	0.00058	0.00061	0.00003	0.00016	0.00019	—	1.89923	1.89923	0.00002	0.00029	0.00160	1.98699
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.19. Grading and Excavation (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.70116	3.11001	24.5656	36.1623	0.07058	0.97834	—	0.97834	0.90007	—	0.90007	—	7,642.57	7,642.57	0.31002	0.06200	—	7,668.80
Dust From Material Movement	—	—	—	—	—	—	1.44758	1.44758	—	0.15631	0.15631	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18832	0.15824	1.24991	1.83996	0.00359	0.04978	—	0.04978	0.04580	—	0.04580	—	388.859	388.859	0.01577	0.00315	—	390.193
Dust From Material Movement	—	—	—	—	—	—	0.07365	0.07365	—	0.00795	0.00795	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03437	0.02888	0.22811	0.33579	0.00066	0.00908	—	0.00908	0.00836	—	0.00836	—	64.3800	64.3800	0.00261	0.00052	—	64.6009
Dust From Material Movement	—	—	—	—	—	—	0.01344	0.01344	—	0.00145	0.00145	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09780	0.09532	0.08309	1.13130	0.00000	0.00000	0.37888	0.37888	0.00000	0.08881	0.08881	—	342.479	342.479	0.00661	0.00248	0.02451	343.408
Vendor	0.00104	0.00076	0.03326	0.00909	0.00019	0.00039	0.00738	0.00777	0.00039	0.00204	0.00243	—	25.8749	25.8749	0.00026	0.00384	0.00118	27.0270
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00498	0.00485	0.00350	0.05913	0.00000	0.00000	0.01918	0.01918	0.00000	0.00449	0.00449	—	17.9044	17.9044	0.00029	0.00013	0.02073	17.9701
Vendor	0.00006	0.00004	0.00166	0.00045	0.00001	0.00002	0.00037	0.00039	0.00002	0.00010	0.00012	—	1.31602	1.31602	0.00001	0.00020	0.00100	1.37559
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00091	0.00089	0.00064	0.01079	0.00000	0.00000	0.00350	0.00350	0.00000	0.00082	0.00082	—	2.96428	2.96428	0.00005	0.00002	0.00343	2.97515
Vendor	0.00001	0.00001	0.00030	0.00008	< 0.000005	< 0.000005	0.00007	0.00007	< 0.000005	0.00002	0.00002	—	0.21788	0.21788	< 0.000005	0.00003	0.00017	0.22774
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.21. Drainage, Utilities, and sub grade (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.94150	1.62558	13.5099	19.4922	0.03953	0.47781	—	0.47781	0.43959	—	0.43959	—	4,087.35	4,087.35	0.16580	0.03316	—	4,101.37
Dust From Material Movement	—	—	—	—	—	—	0.62039	0.62039	—	0.06699	0.06699	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.94150	1.62558	13.5099	19.4922	0.03953	0.47781	—	0.47781	0.43959	—	0.43959	—	4,087.35	4,087.35	0.16580	0.03316	—	4,101.37
Dust From Material Movement	—	—	—	—	—	—	0.62039	0.62039	—	0.06699	0.06699	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62234	0.52108	4.33057	6.24818	0.01267	0.15316	—	0.15316	0.14091	—	0.14091	—	1,310.19	1,310.19	0.05315	0.01063	—	1,314.69
Dust From Material Movement	—	—	—	—	—	—	0.19887	0.19887	—	0.02147	0.02147	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11358	0.09510	0.79033	1.14029	0.00231	0.02795	—	0.02795	0.02572	—	0.02572	—	216.917	216.917	0.00880	0.00176	—	217.661
Dust From Material Movement	—	—	—	—	—	—	0.03629	0.03629	—	0.00392	0.00392	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07347	0.07237	0.04475	1.04235	0.00000	0.00000	0.25259	0.25259	0.00000	0.05921	0.05921	—	258.413	258.413	0.00331	0.00165	0.62890	259.617
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06520	0.06355	0.05539	0.75420	0.00000	0.00000	0.25259	0.25259	0.00000	0.05921	0.05921	—	228.319	228.319	0.00441	0.00165	0.01634	228.938
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02090	0.02037	0.01470	0.24837	0.00000	0.00000	0.08056	0.08056	0.00000	0.01888	0.01888	—	75.1984	75.1984	0.00124	0.00053	0.08707	75.4743
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00381	0.00372	0.00268	0.04533	0.00000	0.00000	0.01470	0.01470	0.00000	0.00345	0.00345	—	12.4500	12.4500	0.00020	0.00009	0.01442	12.4956

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.23. Linear Paving (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.87457	0.73488	6.87657	11.7051	0.01632	0.22129	—	0.22129	0.20359	—	0.20359	—	1,767.33	1,767.33	0.07169	0.01434	—	1,773.39
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.13897	0.11678	1.09272	1.85998	0.00259	0.03516	—	0.03516	0.03235	—	0.03235	—	280.836	280.836	0.01139	0.00228	—	281.799
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.02536	0.02131	0.19942	0.33945	0.00047	0.00642	—	0.00642	0.00590	—	0.00590	—	46.4955	46.4955	0.00189	0.00038	—	46.6551
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05143	0.05066	0.03133	0.72964	0.00000	0.00000	0.17681	0.17681	0.00000	0.04144	0.04144	—	180.889	180.889	0.00231	0.00116	0.44023	181.732
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00725	0.00707	0.00510	0.08618	0.00000	0.00000	0.02796	0.02796	0.00000	0.00655	0.00655	—	26.0945	26.0945	0.00043	0.00018	0.03021	26.1902
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00132	0.00129	0.00093	0.01573	0.00000	0.00000	0.00510	0.00510	0.00000	0.00120	0.00120	—	4.32024	4.32024	0.00007	0.00003	0.00500	4.33609
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	4/1/2028	4/5/2028	5.00000	3.00000	—
Grading	Grading	4/6/2028	4/14/2028	5.00000	7.00000	—
Building Construction	Building Construction	4/15/2028	8/16/2029	5.00000	349.000	—
Diesel Tank Installation Trips	Building Construction	8/16/2029	8/16/2029	5.00000	1.000000	Diesel Tank Installation Trips
Paving	Paving	8/17/2029	9/10/2029	5.00000	17.0000	—
Architectural Coating	Architectural Coating	9/11/2029	10/3/2029	5.00000	17.0000	—
Grubbing and land clearing	Linear, Grubbing & Land Clearing	4/1/2028	5/25/2028	5.00000	39.0000	—
Grading and Excavation	Linear, Grading & Excavation	5/26/2028	1/26/2029	5.00000	176.000	—
Drainage, Utilities, and sub grade	Linear, Drainage, Utilities, & Sub-Grade	1/27/2029	7/10/2029	5.00000	117.000	—
Linear Paving	Linear, Paving	7/11/2029	9/28/2029	5.00000	58.0000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.000000	7.00000	367.000	0.40000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	7.00000	84.0000	0.37000
Building Construction	Cranes	Diesel	Average	1.000000	6.00000	367.000	0.29000

Building Construction	Forklifts	Diesel	Average	1.000000	6.00000	82.0000	0.20000
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	6.00000	84.0000	0.37000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Welders	Diesel	Average	3.00000	8.00000	46.0000	0.45000
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Paving	Cement and Mortar Mixers	Diesel	Average	1.000000	6.00000	10.00000	0.56000
Paving	Pavers	Diesel	Average	1.000000	6.00000	81.0000	0.42000
Paving	Rollers	Diesel	Average	1.000000	7.00000	36.0000	0.38000
Paving	Paving Equipment	Diesel	Average	1.000000	8.00000	89.0000	0.36000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000
Grubbing and land clearing	Signal Boards	Electric	Average	0.00000	8.00000	6.00000	0.82000
Grubbing and land clearing	Crawler Tractors	Diesel	Average	1.000000	8.00000	87.0000	0.43000
Grubbing and land clearing	Excavators	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Grading and Excavation	Excavators	Diesel	Average	3.00000	8.00000	36.0000	0.38000
Grading and Excavation	Graders	Diesel	Average	2.00000	8.00000	148.000	0.41000
Grading and Excavation	Crawler Tractors	Diesel	Average	1.000000	8.00000	87.0000	0.43000
Grading and Excavation	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Grading and Excavation	Rubber Tired Loaders	Diesel	Average	1.000000	8.00000	150.000	0.36000
Grading and Excavation	Scrapers	Diesel	Average	2.00000	8.00000	423.000	0.48000
Grading and Excavation	Signal Boards	Electric	Average	0.00000	8.00000	6.00000	0.82000

Grading and Excavation	Tractors/Loaders/Back	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Drainage, Utilities, and sub grade	Tractors/Loaders/Back hoes	Diesel	Average	3.00000	8.00000	84.0000	0.37000
Drainage, Utilities, and sub grade	Signal Boards	Electric	Average	0.00000	8.00000	6.00000	0.82000
Drainage, Utilities, and sub grade	Scrapers	Diesel	Average	1.000000	8.00000	423.000	0.48000
Drainage, Utilities, and sub grade	Rough Terrain Forklifts	Diesel	Average	1.000000	8.00000	96.0000	0.40000
Drainage, Utilities, and sub grade	Plate Compactors	Diesel	Average	1.000000	8.00000	8.00000	0.43000
Drainage, Utilities, and sub grade	Pumps	Diesel	Average	1.000000	8.00000	11.0000	0.74000
Drainage, Utilities, and sub grade	Air Compressors	Diesel	Average	1.000000	8.00000	37.0000	0.48000
Drainage, Utilities, and sub grade	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Drainage, Utilities, and sub grade	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Linear Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Linear Paving	Pavers	Diesel	Average	1.000000	8.00000	81.0000	0.42000
Linear Paving	Paving Equipment	Diesel	Average	1.000000	8.00000	89.0000	0.36000
Linear Paving	Tractors/Loaders/Back hoes	Diesel	Average	3.00000	8.00000	84.0000	0.37000
Linear Paving	Signal Boards	Electric	Average	0.00000	8.00000	6.00000	0.82000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	Worker	7.50000	14.3000	LDA,LDT1,LDT2

Site Preparation	Vendor	—	8.80000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	10.00000	14.3000	LDA,LDT1,LDT2
Grading	Vendor	—	8.80000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	7.14000	14.3000	LDA,LDT1,LDT2
Building Construction	Vendor	2.78630	8.80000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Diesel Tank Installation Trips	Worker	0.00000	14.3000	LDA,LDT1,LDT2
Diesel Tank Installation Trips	Vendor	10.00000	8.80000	HHDT,MHDT
Diesel Tank Installation Trips	Hauling	0.00000	20.0000	HHDT
Diesel Tank Installation Trips	Onsite truck	—	—	HHDT
Paving	Worker	12.5000	14.3000	LDA,LDT1,LDT2
Paving	Vendor	—	8.80000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	2.85600	14.3000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Grubbing and land clearing	Worker	7.50000	14.3000	LDA,LDT1,LDT2
Grubbing and land clearing	Vendor	0.00000	8.80000	HHDT,MHDT
Grubbing and land clearing	Hauling	0.00000	20.0000	HHDT
Grubbing and land clearing	Onsite truck	—	—	HHDT
Grading and Excavation	Worker	37.5000	14.3000	LDA,LDT1,LDT2

Grading and Excavation	Vendor	1.000000	8.80000	HHDT,MHDT
Grading and Excavation	Hauling	0.00000	20.0000	HHDT
Grading and Excavation	Onsite truck	—	—	HHDT
Drainage, Utilities, and sub grade	Worker	25.0000	14.3000	LDA,LDT1,LDT2
Drainage, Utilities, and sub grade	Vendor	0.00000	8.80000	HHDT,MHDT
Drainage, Utilities, and sub grade	Hauling	0.00000	20.0000	HHDT
Drainage, Utilities, and sub grade	Onsite truck	—	—	HHDT
Linear Paving	Worker	17.5000	14.3000	LDA,LDT1,LDT2
Linear Paving	Vendor	0.00000	8.80000	HHDT,MHDT
Linear Paving	Hauling	0.00000	20.0000	HHDT
Linear Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00000	0.00000	25,500.0	8,500.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	2.81250	0.00000	0.00000
Grading	—	—	7.00000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	0.78000

Grubbing and land clearing	—	—	0.78000	0.00000	0.00000
Grading and Excavation	—	—	0.78000	0.00000	0.00000
Drainage, Utilities, and sub grade	—	—	0.78000	0.00000	0.00000

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	General Light Industry	0.00000	0%
Paving	Road Widening	0.78000	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2028	0.00000	528.465	0.03300	0.00400
2029	0.00000	528.465	0.03300	0.00400

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	26.6300	annual days of extreme heat
Extreme Precipitation	5.85000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00000	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	63.6590
AQ-PM	15.0591
AQ-DPM	14.0884
Drinking Water	39.6528
Lead Risk Housing	5.49464
Pesticides	84.3448
Toxic Releases	16.8167
Traffic	5.90000
Effect Indicators	—
CleanUp Sites	40.8361
Groundwater	76.5731
Haz Waste Facilities/Generators	78.7558
Impaired Water Bodies	86.9593
Solid Waste	97.9152
Sensitive Population	—
Asthma	26.1216
Cardio-vascular	64.2572
Low Birth Weights	9.63562

Socioeconomic Factor Indicators	—
Education	26.9425
Housing	10.8365
Linguistic	27.2567
Poverty	30.9296
Unemployment	22.5664

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	73.68150905
Employed	52.68831002
Median HI	80.45682022
Education	—
Bachelor's or higher	68.40754523
High school enrollment	5.671756705
Preschool enrollment	30.89952521
Transportation	—
Auto Access	54.54895419
Active commuting	15.8475555
Social	—
2-parent households	79.26344155
Voting	94.30257924
Neighborhood	—
Alcohol availability	92.66007956
Park access	11.4718337
Retail density	3.06685487

Supermarket access	2.399589375
Tree canopy	10.02181445
Housing	—
Homeownership	81.9196715
Housing habitability	62.8127807
Low-inc homeowner severe housing cost burden	58.02643398
Low-inc renter severe housing cost burden	14.53868857
Uncrowded housing	58.74502759
Health Outcomes	—
Insured adults	93.45566534
Arthritis	71.8
Asthma ER Admissions	71.5
High Blood Pressure	85.1
Cancer (excluding skin)	40.8
Asthma	65.7
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	81.8
Diagnosed Diabetes	91.2
Life Expectancy at Birth	75.3
Cognitively Disabled	96.3
Physically Disabled	86.7
Heart Attack ER Admissions	61.3
Mental Health Not Good	73.6
Chronic Kidney Disease	90.3
Obesity	70.2
Pedestrian Injuries	44.4
Physical Health Not Good	87.1
Stroke	88.3

Health Risk Behaviors	—
Binge Drinking	11.9
Current Smoker	64.6
No Leisure Time for Physical Activity	81.2
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	0.5
Elderly	55.1
English Speaking	69.8
Foreign-born	37.6
Outdoor Workers	58.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	79.6
Traffic Density	4.8
Traffic Access	23.0
Other Indices	—
Hardship	39.8
Other Decision Support	—
2016 Voting	91.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	29.0000
Healthy Places Index Score for Project Location (b)	63.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Construction: Construction Phases	391 day work schedule
Construction: Off-Road Equipment	no equipment for diesel tank deliveries
Construction: Trips and VMT	5 round trips for diesel deliveries for 10 total one way trips

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Site Preparation	Site Preparation	Start Date	4/16/2028	4/1/2028
Site Preparation	Site Preparation	End Date	4/17/2028	4/5/2028
Site Preparation	Site Preparation	Work Days per Phase	1.000000	3.00000
Grading	Grading	Start Date	4/18/2028	4/6/2028
Grading	Grading	End Date	4/20/2028	4/14/2028
Grading	Grading	Work Days per Phase	2.00000	7.00000
Building Construction	Building Construction	Start Date	4/21/2028	4/15/2028

Building Construction	Building Construction	End Date	9/8/2028	8/16/2029
Building Construction	Building Construction	Work Days per Phase	100.0000	349.000
Paving	Paving	Start Date	9/9/2028	8/17/2029
Paving	Paving	End Date	9/16/2028	9/10/2029
Paving	Paving	Work Days per Phase	5.00000	17.0000
Architectural Coating	Architectural Coating	Start Date	9/17/2028	9/11/2029
Architectural Coating	Architectural Coating	End Date	9/24/2028	10/3/2029
Architectural Coating	Architectural Coating	Work Days per Phase	5.00000	17.0000

8.4.6. Trips and VMT

Phase Name	Trip Type	Model Parameter	Default Value	New Value
Diesel Tank Installation Trips	Worker	One-Way Trips per Day	7.14000	0.00000
Diesel Tank Installation Trips	Vendor	One-Way Trips per Day	2.78630	10.00000

Energy Tables

PGWWTP

= from caleemod

= calculated

Construction Energy

Element	Fuel Assumed	MT CO2 from GHG Calcs	CO2 (kg)	fuel (Gallons)
Equipment	Diesel	1,193	1,192,536	116,801
Vendor and HaulTrucks	Diesel	14	14,470	1,417
Workers	Gasoline	59	58,973	6,717
Total	Diesel	1,207	1,207,006	118,218
	Gasoline	59	58,973	6,717

Generator Energy

Element		MT CO2 from GHG Calcs	CO2 (kg)	fuel (Gallons)
Existing Generators	Diesel	153	153,211	15,006
Proposed Generators	Diesel	210	209,879	20,556
Total	Diesel	363	363,090	35,562
	Gasoline	0	0	0

Conversions

MT to kg	1000	
CO2 to Gal gasoline	8.78 EPA 2024	gasoline
CO2 to gas diesel	10.21 EPA 2024	diesel

EPA 2024. GHG Emission Factor Hub (2024). Available: <https://www.epa.gov/climateleadership/ghg-emission-factors-hub>. Accessed August 5, 2024

POWWTP Existing and Proposed Generator Emission Calculations

Specs and Activity

	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor	hphr/daily for all generators	hphr/ann for all generators
Existing Generators	2	0.2740	100	1825	0.73	730	266,450
Proposed Generators	2	0.274	100	2500	0.73	1,000	365,000
total							

Source: Project Description and PCAPCD Rule 502
Source: Project Description and PCAPCD Rule 502

Emission Factors

Piece	Tier	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Existing Generators	2	6.4	2.600	3.5	0.005	0.2	0.2	521.640	0.021	0.004
Proposed Generators	2	6.4	2.600	3.5	0.005	0.2	0.2	521.640	0.021	0.004

Emission Calculations

Pounds per Day

Piece	Hp-hrs	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Existing Generators	730	10.30	4.18	5.63	0.01	0.32	0.32	839.51	0.03	0.01
Proposed Generators	1000	14.11	5.73	7.72	0.01	0.44	0.44	1150.02	0.05	0.01
Emission Increase		3.81		2.08		0.12				

Daily Tons CO2

Annual Tons CO2

0.4198

210

0.5750

57

Table G-40. Emergency Generator and Fire Pump Emission Factors

Caleemod Default Emission Factors for Emergency Generators

Equipment	Fuel	Low HP	High HP	Unit of Emission Factor	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Emergency Generator	Diesel	0	11	g/bhp-hr.	1.120	1.020	5.970	5.317	0.005	0.597	0.597	521.640	0.021	0.004
Emergency Generator	Diesel	11	25	g/bhp-hr.	1.120	1.020	4.925	5.317	0.005	0.597	0.597	521.640	0.021	0.004
Emergency Generator	Diesel	25	50	g/bhp-hr.	1.120	1.020	4.104	5.317	0.005	0.448	0.448	521.640	0.021	0.004
Emergency Generator	Diesel	50	75	g/bhp-hr.	1.120	1.020	3.700	3.325	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	Diesel	75	100	g/bhp-hr.	1.120	1.020	3.700	3.325	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	Diesel	100	175	g/bhp-hr.	1.120	1.020	3.700	2.850	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	Diesel	175	300	g/bhp-hr.	1.120	1.020	2.600	2.850	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	Diesel	300	600	g/bhp-hr.	1.120	1.020	2.600	2.850	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	Diesel	600	750	g/bhp-hr.	1.120	1.020	2.600	2.850	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	Diesel	750	9999	g/bhp-hr.	1.120	1.020	2.600	4.560	0.005	0.150	0.150	521.640	0.021	0.004

CARB Tier 4 Engine Emission Factors

Table 1. Off Road Compression - Ignition Diesel Engine Standards (NMHC + Now/CO/PM in g/bhp hr.)

Eq. (kw)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015+
> 50 (37)				N/A ^(a)						4.6 (7.4)				3.5 (4.7)				3.5	3.7	0.02 ^(b)	
> 75 (55.5)				6.9 (9.2)						3.7 (5.0)				0.22 ^(c)							
> 75 (55.5)				N/A ^(a)						5.6 (7.5)				3.5 (4.7)				0.14	2.5	0.29	0.14
> 100 (75)				6.9 (9.2)						3.7 (5.0)				3.7 (5.0)				3.7	3.7	0.01 ^(b)	0.14
> 100 (75)				N/A						3.30 (0.40)				0.3				0.01 ^(b)			
> 100 (75)				N/A ^(a)						4.9 (6.6)				3.04 (0)				0.14	2.5	0.29	0.14
> 175 (130) ^(d)				6.9 (9.2)						9.7 (5.0)				0.22				3.7	3.7	0.01 ^(b)	0.14
> 175 (130)				N/A						9.22 (0.30)								0.01 ^(b)			
> 300 (225) ^(d)				4.0 (1.3) ^(e)						4.9 (6.6)				3.0 (4.0)				0.14	1.5	0.3	0.14
> 300 (225) ^(d)				6.9 (9.2)						2.6 (3.5)				0.15 ^(f)				2.6	2.6	0.01 ^(b)	
> 300 (225)				8.5 (11.4)						0.40 (0.54)				0.01 ^(b)				0.01 ^(b)			
> 300 (225)				0.60 (0.54)						0.15 (0.20)				0.15 ^(f)				0.01 ^(b)			
> 600 (450) ^(d)				1.0 (1.3) ^(e)						4.8 (6.4)				3.0 (4.0)				0.14	1.5	0.3	0.14
> 600 (450) ^(d)				6.9 (9.2)						2.6 (3.5)				0.15 ^(f)				2.6	2.6	0.01 ^(b)	
> 600 (450)				8.5 (11.4)						0.15 (0.20)				0.15 ^(f)				0.01 ^(b)			
> 600 (450)				0.40 (0.54)						4.8 (6.4)				3.0 (4.0)				0.14	1.5	0.3	0.14
> 600 (450)				6.9 (9.2)						2.6 (3.5)				0.15 ^(f)				2.6	2.6	0.01 ^(b)	
> 600 (450)				8.5 (11.4)						0.15 (0.20)				0.15 ^(f)				0.01 ^(b)			
> 750 (560) ^(d)				1.0 (1.3) ^(e)						4.8 (6.4)				2.6 (3.5)				0.3	2.6	2.6	0.01 ^(b)
> 750 (560) ^(d)				6.9 (9.2)						0.15 (0.20)				0.15 ^(f)				0.01 ^(b)			
> 750 (560)				8.5 (11.4)						0.40 (0.54)				0.15 (0.20)				0.01 ^(b)			
> 750 (560)				0.40 (0.54)						4.8 (6.4)				2.6 (3.5)				0.3	2.6	2.6	0.01 ^(b)
> 750 (560)				6.9 (9.2)						0.15 (0.20)				0.15 ^(f)				0.01 ^(b)			
> 750 (560)				8.5 (11.4)						0.40 (0.54)				0.15 (0.20)				0.01 ^(b)			
> 1207	Generators			1.0 (1.3) ^(e)						4.8 (6.4)				2.6 (3.5)				0.3	2.6	2.6	0.01 ^(b)
> 1207	Generators			6.9 (9.2)						0.15 (0.20)				0.15 ^(f)				0.01 ^(b)			
> 1207	Generators			8.5 (11.4)						4.7 (6.4)				2.6 (3.5)				0.3	2.6	2.6	0.01 ^(b)
> 1207	Generators			0.40 (0.54)						4.7 (6.4)				2.6 (3.5)				0.3	2.6	2.6	0.01 ^(b)
> 1207	Generators			6.9 (9.2)						0.15 (0.20)				0.15 ^(f)				0.01 ^(b)			
> 1207	Generators			8.5 (11.4)						4.7 (6.4)				2.6 (3.5)				0.3	2.6	2.6	0.01 ^(b)
> 1207	Generators			0.40 (0.54)						4.7 (6.4)				2.6 (3.5)				0.3	2.6	2.6	0.01 ^(b)

Appendix B

Noise Data

Construction Equipment Average Noise Levels

Project Name: PGWWTP Electrical Expansion Project Initial Study

KEY: Orange cells are for input.

Grey cells are intermediate calculations performed by the model.

Green cells are data to present in a written analysis (output).

Location		Distance to Nearest Receptor in feet	Combined Predicted Noise Level (dBA L _{eq})	Equipment ¹	Reference Emission Noise Levels (dBA L _{max}) at 50 feet ²	Usage Factor ²
Thresholds				Compactor (ground)	83	0.2
				Gradall	83	0.4
Sensitive Receptors				Ground Type	Soft	
				Source Height	5	
				Receiver Height	5	
				Ground Factor ³	0.58	

Sources:

¹Where measured values are not available, noise levels based on the Construction Noise Control Specification 721.560 were used.

² Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

³ Based on Figure 4-26 from the Federal Transit Noise and Vibration Impact Assessment, 2018 (pg 86).

⁴ Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2018 (pg 177).

$$L_{eq}(\text{equip}) = E.L. + 10 \cdot \log(U.F.) - 20 \cdot \log(D/50) - 10 \cdot G \cdot \log(D/50)$$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2018: pg 86); and

D = Distance from source to receiver.

Construction Equipment Maximum Noise Levels

Project Name: PGWWTP Electrical Expansion Project Initial Study

KEY: Orange cells are for input.

Grey cells are intermediate calculations performed by the model.

Green cells are data to present in a written analysis (output).

Location		Distance to Nearest Receptor in feet	Combined Predicted Noise Level (dBA L _{max})	Equipment ¹	Reference Emission Noise Levels (dBA L _{max}) at 50 feet ²
Thresholds				Compactor (ground)	83
				Gradall	83
Sensitive Receptors				Ground Type	Soft
Residence 1	1700		46.5	Source Height	5
Residence 2	1800		45.8	Receiver Height	5
				Ground Factor ³	0.58
				Predicted Noise Level ³	dBA L _{max} at 50 feet ³
				Compactor (ground)	83.0
				Gradall	83.0
				Combined Predicted Noise Level (dBA L _{max} at 50 feet)	
				86.0	

Sources:

¹Where measured values are not available, noise levels based on the Construction Noise Control Specification 721.560 were used.

²Based on Figure 4-26 from the Federal Transit Noise and Vibration Impact Assessment, 2018 (pg 86).

³Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2018 (pg 177).

$$L_{eq}(\text{equip}) = E.L. + 10 \cdot \log(U.F.) - 20 \cdot \log(D/50) - 10 \cdot G \cdot \log(D/50)$$

Where: E.L. = Emission Level;

U.F. = Usage Factor, assumed to be 1 for the purposes of the calculation of maximum noise levels;

G = Constant that accounts for topography and ground effects (FTA 2018: pg 86); and

D = Distance from source to receiver.

Equipment Description	Acoustical Usage Factor (%)	Spec 721.560 Lmax @ 50ft (dBA slow)	Actual Measured Lmax @ 50ft (dBA slow)	No. of Actual Data Samples (count)	Spec 721.560 LmaxCalc	Spec 721.560 Leq	Distance	Actual Measured LmaxCalc	Actual Measured Leq
Auger Drill Rig	20	85	84	36	85.0	78.0	50	84.0	77.0
Backhoe	40	80	78	372	80.0	76.0	50	78.0	74.0
Bar Bender	20	80	80	0	80.0	73.0	50	80.0	73.0
Blasting	100	94	94	0	94.0		50	94.0	94.0
Boring Jack Power Unit	50	80	83	1	80.0	77.0	50	83.0	80.0
Chain Saw	20	85	84	46	85.0	78.0	50	84.0	77.0
Clam Shovel (dropping)	20	93	87	4	93.0	86.0	50	87.0	80.0
Compactor (ground)	20	80	83	57	80.0	73.0	50	83.0	76.0
Compressor (air)	40	80	78	18	80.0	76.0	50	78.0	74.0
Concrete Batch Plant	15	83	83	0	83.0	74.8	50	83.0	74.8
Concrete Mixer Truck	40	85	79	40	85.0	81.0	50	79.0	75.0
Concrete Pump Truck	20	82	81	30	82.0	75.0	50	81.0	74.0
Concrete Saw	20	90	90	55	90.0	83.0	50	90.0	83.0
Crane	16	85	81	405	85.0	77.0	50	81.0	73.0
Dozer	40	85	82	55	85.0	81.0	50	82.0	78.0
Drill Rig Truck	20	84	79	22	84.0	77.0	50	79.0	72.0
Drum Mixer	50	80	80	1	80.0	77.0	50	80.0	77.0
Dump Truck	40	84	76	31	84.0	80.0	50	76.0	72.0
Excavator	40	85	81	170	85.0	81.0	50	81.0	77.0
Flat Bed Truck	40	84	74	4	84.0	80.0	50	74.0	70.0
Front End Loader	40	80	79	96	80.0	76.0	50	79.0	75.0
Generator	50	82	81	19	82.0	79.0	50	81.0	78.0
Generator (<25KVA, VMS signs)	50	70	73	74	70.0	67.0	50	73.0	70.0
Gradall	40	85	83	70	85.0	81.0	50	83.0	79.0
Grader	40	85	85	0	85.0	81.0	50	85.0	81.0
Grapple (on Backhoe)	40	85	87	1	85.0	81.0	50	87.0	83.0
Horizontal Boring Hydr. Jack	25	80	82	6	80.0	74.0	50	82.0	76.0
Hydra Break Ram	10	90	90	0	90.0	80.0	50	90.0	80.0
Impact Pile Driver	20	95	101	11	95.0	88.0	50	101.0	94.0
Jackhammer	20	85	89	133	85.0	78.0	50	89.0	82.0
Man Lift	20	85	75	23	85.0	78.0	50	75.0	68.0
Mounted Impact Hammer (hoe ram)	20	90	90	212	90.0	83.0	50	90.0	83.0
Pavement Scarafier	20	85	90	2	85.0	78.0	50	90.0	83.0
Paver	50	85	77	9	85.0	82.0	50	77.0	74.0
Pickup Truck	40	55	75	1	55.0	51.0	50	75.0	71.0
Pneumatic Tools	50	85	85	90	85.0	82.0	50	85.0	82.0
Pumps	50	77	81	17	77.0	74.0	50	81.0	78.0
Refrigerator Unit	100	82	73	3	82.0	82.0	50	73.0	73.0
Rivit Buster/chipping gun	20	85	79	19	85.0	78.0	50	79.0	72.0
Rock Drill	20	85	81	3	85.0	78.0	50	81.0	74.0
Roller	20	85	80	16	85.0	78.0	50	80.0	73.0
Sand Blasting (Single Nozzle)	20	85	96	9	85.0	78.0	50	96.0	89.0
Scraper	40	85	84	12	85.0	81.0	50	84.0	80.0
Shears (on backhoe)	40	85	96	5	85.0	81.0	50	96.0	92.0
Slurry Plant	100	78	78	1	78.0	78.0	50	78.0	78.0
Slurry Trenching Machine	50	82	80	75	82.0	79.0	50	80.0	77.0
Soil Mix Drill Rig	50	80	80	0	80.0	77.0	50	80.0	77.0
Tractor	40	84	84	0	84.0	80.0	50	84.0	80.0
Vacuum Excavator (Vac-truck)	40	85	85	149	85.0	81.0	50	85.0	81.0
Vacuum Street Sweeper	10	80	82	19	80.0	70.0	50	82.0	72.0
Ventilation Fan	100	85	79	13	85.0	85.0	50	79.0	79.0
Vibrating Hopper	50	85	87	1	85.0	82.0	50	87.0	84.0
Vibratory Concrete Mixer	20	80	80	1	80.0	73.0	50	80.0	73.0
Vibratory Pile Driver	20	95	101	44	95.0	88.0	50	101.0	94.0
Warning Horn	5	85	83	12	85.0	72.0	50	83.0	70.0
Welder / Torch	40	73	74	5	73.0	69.0	50	74.0	70.0

KEY: Orange cells are for input.

Grey cells are intermediate calculations performed by the model.

Green cells are data to present in a written analysis (output).

Project Name: PGWWTP Electrical Expansion Project Initial Study

STEP 1: Determine units in which to perform calculation.

- If vibration decibels (VdB), then use Table A and proceed to Steps 2A and 3A.
- If peak particle velocity (PPV), then use Table B and proceed to Steps 2B and 3B.

STEP 2A: Identify the vibration source and enter the reference vibration level (VdB) and distance.

STEP 3A: Select the distance to the receiver.

Table A. Propagation of vibration decibels (VdB) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
	vibration level (VdB)	@	distance (ft)	vibration level (VdB)	@	distance (ft)
Vibratory Roller	94	@	25	80	@	73

*The Lv metric (VdB) is used to assess the likelihood for vibration to result in human annoyance.

Land Use Category	Human Annoyance Criteria GBV Impact Levels (VdB re 1 micro-inch/sec)		
	Frequent Events	Occasional Events	Infrequent Events
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB	65 VdB	65 VdB
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

Source: Federal Transit Administration, pg 126

STEP 3B: Select the distance to the receiver.

Table B. Propagation of peak particle velocity (PPV) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
	vibration level (PPV)	@	distance (ft)	vibration level (PPV)	@	distance (ft)
Vibratory Roller	0.210	@	25	0.200	@	26

*The PPV metric (in/sec) is used for assessing the likelihood for the potential of structural damage.

Construction Vibration Damage Criteria		
Building/Structural Category	PPV, in/sec	Approximate Lv
I. Reinforced-concrete, steel or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry building	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90

Source: Federal Transit Administration, pg 186

Notes:

- Computation of propagated vibration levels is based on the equations presented on pg. 185 of FTA 2018.
- Estimates of attenuated vibration levels do not account for reductions from intervening underground barriers or other underground structures of any type, or changes in soil type.
- Frequent Events are defined as more than 70 events per day; occasional events as 30-70 events per day; and infrequent events as fewer than 30 events per day

Reference:

Federal Transit Association (FTA). 2018 (September). *Transit Noise and Vibration Impact Assessment Manual*. FTA Report No. 0123. Washington, D.C.

Accessed: December 20, 2020. Page Available:

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

Equipment	PPV at 25 ft, in/sec	Approximate LV at 25 ft	Reference
Pile Driver (impact - upper range)	1.518	112	FTA Noise and Vibration Manual Page 184
Pile Driver (Sonic - upper range)	0.734	105	FTA Noise and Vibration Manual Page 184
Pile Driver (impact - typical)	0.644	104	FTA Noise and Vibration Manual Page 184
Vibratory Roller	0.21	94	FTA Noise and Vibration Manual Page 184
Clam Shovel	0.202	94	FTA Noise and Vibration Manual Page 184
Clam Shovel	0.202	94	FTA Noise and Vibration Manual Page 184
Pile Driver (Sonic - typical)	0.17	93	FTA Noise and Vibration Manual Page 184
Hoe Ram	0.089	87	FTA Noise and Vibration Manual Page 184
Large Bulldozer	0.089	87	FTA Noise and Vibration Manual Page 184
Caisson Drilling	0.089	87	FTA Noise and Vibration Manual Page 184
Loaded Trucks	0.076	86	FTA Noise and Vibration Manual Page 184
Jackhammer	0.035	79	FTA Noise and Vibration Manual Page 184
Hydromill (Slurry Wall)	0.008	66	FTA Noise and Vibration Manual Page 184
Small Bulldozer	0.003	58	FTA Noise and Vibration Manual Page 184

Notes:

Computation of propagated vibration levels is based on the equations presented on pg. 185

Federal Transit Association (FTA). 2018 (September). Transit Noise and Vibration Impact Assessment Manual. FTA Report No. 0123. Washington, D.C. Accessed: December 20, 2020. Page Available:

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf