Community Solar Project

Initial Study/Mitigated Negative Declaration

May 2018

CITY OF ROSEVILLE CALIFORNIA

311 Vernon Street
Roseville, CA 95678
Contact: Mark Morse
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Tables and Figures

Acronyms and Abbreviations

ADAM	Aerometric Data Analysis and Management System
AC	alternating current
AB 32	Assembly Bill 32
BMPs	best management practices
ARB	California Air Resources Board
CAAQS	California ambient air quality standards
DTSC	California Department of Toxic Substance Control
Caltrans	California Department of Transportation
Cal/OSHA	California Division of Occupational Safety and Health
CalEEMod	California Emissions Estimator Model
CESA	California Endangered Species Act
Williamson Act	California Land Conservation Act of 1965
CNPS's	California Native Plant Society's
CNDDB	California Natural Diversity Database
Cal-OSHA	California Occupational Safety and Health Administration
CRHR	California Register of Historic Resources
CVC	California Vehicle Code
CO2	carbon dioxide
CO2e	carbon dioxide equivalent
CO	carbon monoxide
CEQA Handbook	CEQA Air Quality Handbook
CUPA	Certified Unified Program Agency
City	City of Roseville
CRCV	Coast Range Central Valley
CNEL	community noise equivalent level
cy	cubic yards
Ldn	day-night sound level
dB	decibel
DPM	diesel particulate matter
DC	direct current
EPA	Environmental Protection Agency
Leq	equivalent sound level
EO	Executive Order
Farmland	Farmland of Statewide Importance
FHWA	Federal Highway Administration
FR	Federal Register
FTA	Federal Transit Administration
GHG	greenhouse gas

HFC	hydrofluorocarbons
IS/MND	initial study/mitigated negative declaration
I-80	Interstate 80
kVA	kilovolt-ampere
Pb	lead
LOS	level of service
MRF	Materials Recovery Facility
Lmax	maximum
MEI	maximum exposed individual
MWh	megawatt-hours
CH4	methane
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
Lmin and Lmax	minimum and maximum sound levels
MMRP	Mitigation Monitoring and Reporting Plan
MLD	Most Likely Descendant
NAAQS	national ambient air quality standards
NEMA	National Electrical Manufacturers Associated
NAHC	Native American Heritage Commission
NOA	naturally occurring asbestos
NOX	nitrogen oxides
N2O	nitrous oxide
O&M	Operation & Maintenance
Public/Quasi-Public	P/QP
2012	PCAPCD's CEQA Air Quality Handbook
PPV	peak particle velocity
PV	photovoltaic
PCAPCD	Placer County Air Pollution Control District
PCTPA	Placer County Transportation Planning Agency's
PRC	Public Resources Code
P/QP	Public/Quasi-Public
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
Roseville Electric	Roseville Electric Utility
REP	Roseville Energy Park
RPD	Roseville Police Department
SMAQMD	Sacramento Metropolitan Air Quality Management District
Ozone Plan	Sacramento Regional 8-Hour Attainment and Reasonable Further Progress Plan
SFBAAB	San Francisco Bay Area Air Basin
SB 32	Senate Bill 32

SR	State Route
SWPPP	stormwater pollution prevention plan
SO2	sulfur dioxide
SF6	sulfur hexafluoride
USGS	U.S. Geological Survey
EPA	United States Environmental Protection Agency

Chapter 1
Introduction and Summary

1.1 Introduction

This document is an initial study/mitigated negative declaration (IS/MND) that addresses the potential environmental impacts of the Roseville Community Solar Pilot Project (proposed project) proposed by the City of Roseville (City) under a partnership between Roseville Electric Utility (Roseville Electric) and Sunworks. The proposed project involves installing an estimated 3,348 photovoltaic (PV) panels to support a 1,103 kilowatt direct current (DC) and 900 kilowatt alternating current (AC) solar facility that would provide renewable energy to the City's electric grid. This renewable energy project would help the City meet state objectives, including those in Assembly Bill 32 (the California Global Warming Solutions Act of 2006) and the Governor's Executive Order S-21-09. These state objectives aim to reduce greenhouse gas (GHG) emissions to 1990 levels by 2020.

The 5.99-acre project site is located adjacent to and north of the Roseville Energy Park site in western Roseville (Figure 1). The site is in an Infill area, and is designated Public/Quasi Public in the *City of Roseville General Plan 2035*. The site is bordered on the west, south, and east sides by the *West Roseville Specific Plan* area and on the north by the *Creekview Specific Plan* area.

The California Environmental Quality Act (CEQA) and Section 15004 of the State CEQA Guidelines encourage early completion of environmental documentation to enable environmental considerations to influence project design. This IS/MND is a public information document that discloses the proposed project's environmental effects and informs decision makers of the proposed project's compliance with CEQA and the State CEQA Guidelines.

This document describes the proposed project's goals and background, project components, the existing environmental setting (conditions before implementation of the project), and the potential environmental impacts of the proposed project. Chapter 2, *Project Description*, describes the proposed project and the best management practice (BMP) measures that the City has incorporated into the proposed project to avoid and minimize potential effects. Chapter 3, *Environmental Checklist*, identifies the anticipated environmental impacts by topic and provides mitigation measures that would be implemented to avoid significant impacts.

1.2 CEQA Lead Agency

The City—the lead agency for the proposed project under CEQA—determined that preparation of an IS/MND was necessary to evaluate the environmental issues associated with the proposed project and satisfy the requirements of CEQA and the State CEQA Guidelines. The IS/MND is available for public review at the following location:

City of Roseville Permit Center
311 Vernon Street
Roseville, CA 95678
(8:00a.m. to 5:00p.m Monday through Friday)

The IS/MND can also be viewed or downloaded from the City's website via the following link:
http://www.roseville.ca.us/gov/development_services/planning/environmental_documents_n_public_notices.asp.

This IS/MND is being circulated for public and agency review as required by CEQA. Because the project does not meet the criteria for statewide, regional, or area-wide significance (California Code of Regulations [CCR] §15206(a)(1)), no state agencies will act as responsible or trustee agencies. Consequently, the City will not circulate the IS/MND to the State Clearinghouse of the Governor's Office of Planning and Research for distribution and it will be subject to a 20-day review period (CCR§15105(b)): **May 11 through May 30, 2018 at 5:00 p.m.**

During the review period, written comments may be submitted to:

Mr. Mark Morse, Environmental Coordinator
City of Roseville, City Manager's Office
311 Vernon Street
Roseville, CA 95678

Or via email to: *mmorse@roseville.ca.us*

1.3 Summary

This IS/MND concludes that the proposed project would have potentially significant but mitigable impacts on biological resources, cultural resources, and paleontological resources, as described in Chapter 3, *Environmental Checklist*. This IS/MND identifies a variety of mitigation measures that the City would implement to avoid or minimize potentially significant impacts on biological resources, cultural resources, and paleontological resources. Implementation of these measures, in addition to project BMPs, would reduce the potential impacts to a less-than-significant level.

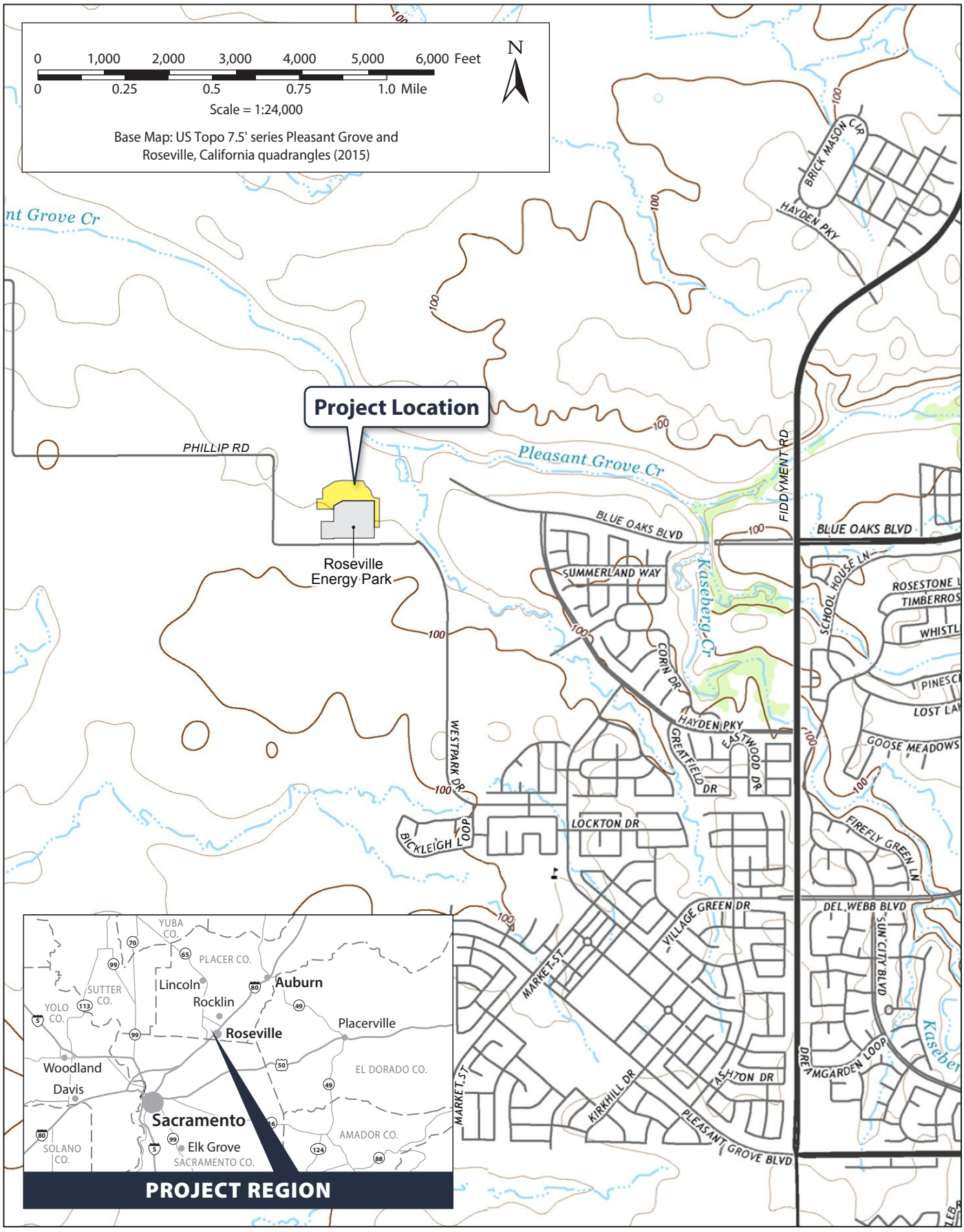

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Figure 1
Project Location

Chapter 2
Project Description

The City of Roseville, Roseville Electric, and Sunworks are proposing to construct the Roseville Community Solar Pilot Project on City-owned land located immediately north of the Roseville Energy Park site in northwest Roseville, California. The proposed project involves installing an estimated 3,348 PV panels to support a 1,103 kilowatt DC, 900 kilowatt AC solar facility that would provide renewable energy to the City's electric grid. This renewable energy project would help the City meet state objectives, including those in Assembly Bill 32 (the California Global Warming Solutions Act of 2006) and the Governor's Executive Order S-21-09. These state objectives aim to reduce greenhouse gas emissions to 1990 levels by 2020.

The proposed project would be a large, centrally located solar-electric system that would benefit multiple participants in the city. The program has been designed to allow interested Roseville residents to participate in a community solar project and to receive benefits equal to that of a rooftop solar system, even if they do not own or have access to a roof compatible with installation for solar power. The power provided by the solar facility would not feed directly into the customer's individual residence. The energy generated would go into Roseville Electric's electric grid through *virtual net metering*, in which customers would receive the appropriate credit for their share of the energy generated each month at the solar facility.

2.1 Project Location and Existing Conditions

The proposed project would be constructed on 5.99 acres of City-owned property in northwest Roseville, in western Placer County, California. The project site is located immediately adjacent to and north of the existing Roseville Energy Park facility (Figure 1) and approximately 0.15 mile south of Pleasant Grove Creek. The project site falls within the Pleasant Grove 7.5-minute U.S. Geological Survey topographic quadrangle map in Section 23 of Township 11 North, Range 5 East, Mount Diablo Base and Meridian.

The project site is currently dominated by annual grasslands with scattered seasonal wetlands bordering the site to the east, west, and north (and within a small avoidance area on the site). The surrounding area is rural with isolated residences north, west, and east of the Roseville Electric Energy Park and the Pleasant Grove Wastewater Treatment Plant located south of the energy park (across Phillip Road). The planned westward extension of Blue Oaks Boulevard, a six-lane arterial that would be part of the *Creekview Specific Plan* area, borders the northern edge of the project site. The *West Roseville Specific Plan* area borders the project site on the west, south, and east. The Westpark residential community, part of the *West*

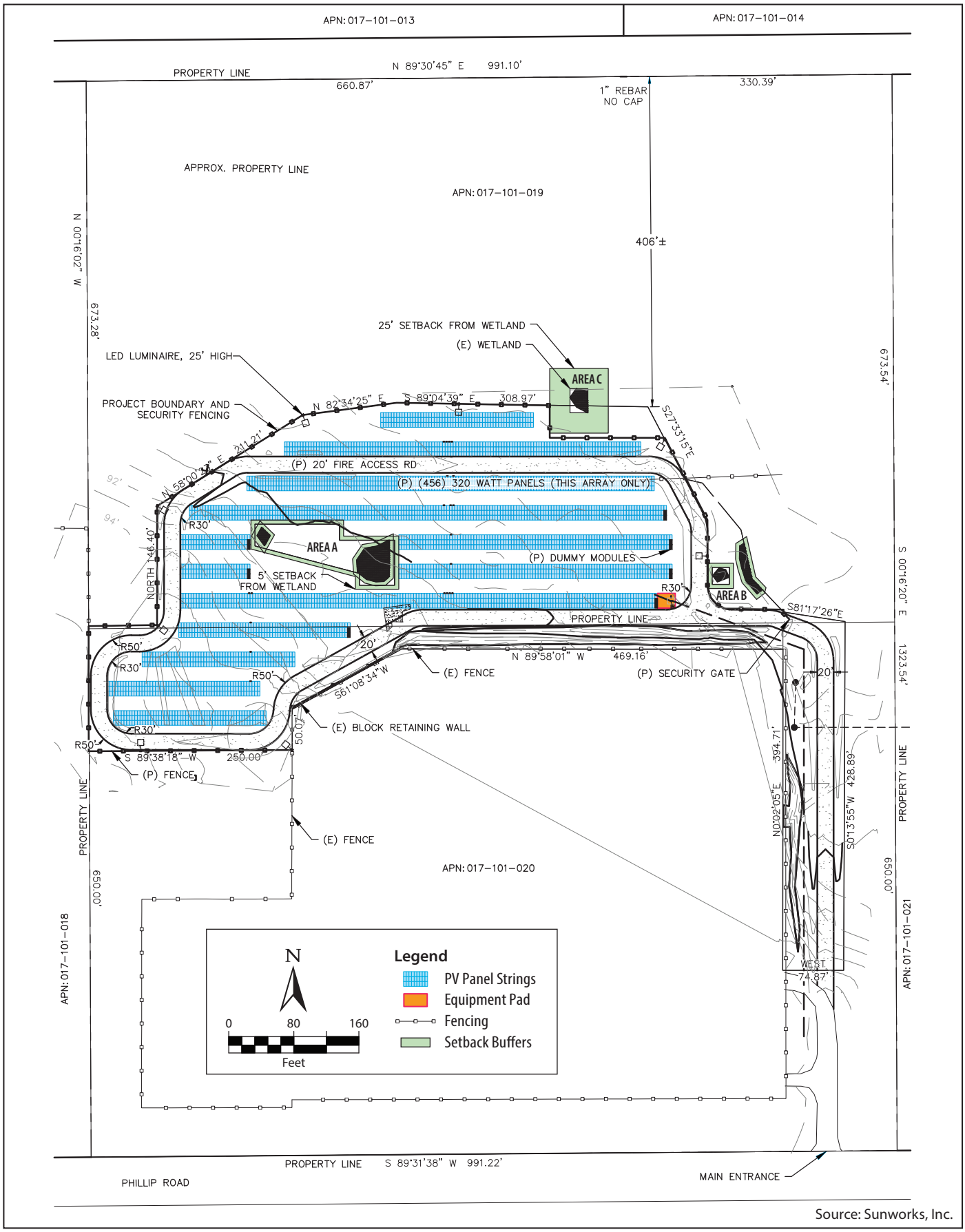
Roseville Specific Plan area, is approximately 0.2 mile west of the project site; the area between the Westpark development and the project site is designated for Community Commercial and Light Industrial use in the *City of Roseville General Plan 2035*. The project site is in an Infill area and is designated as Public/Quasi Public in the General Plan. The project site carries a City zoning designation of P/QP: Public/Quasi Public.

2.2 Project Components

The proposed project layout is shown in Figure 2. The site plan was developed using information from a biological survey that documented seasonal wetlands on the property (see the Salix Consulting Inc., Regulatory Guidance for Phase 1 Roseville Community Solar Project letter [January 24, 2018] contained in Appendix A). The City's goal was to avoid effects on seasonal wetlands and associated habitat values by siting the solar facility and access road outside the delineated wetland areas. The site plan contains an onsite avoidance area ("Area A" in Figure 2) and setback buffers along the northern and eastern perimeter ("Area B" and "Area C" in Figure 2) to ensure that impacts on wetlands remain within the previously permitted limits. This approach resulted in a site plan (as shown in Figure 2) that avoids direct and potential new indirect wetland impacts.

The proposed project consists of the following primary elements.

- **PV Panel Strings.** The PV panel strings would consist of driven piers, fixed-tilt racking arrays (with three rows of modules in each array row), and PV panels. The driven piers, consisting of I-beams vibrated or driven to a depth of approximately 7 feet, would support the solar arrays. Fixed-tilt arrays would be installed onto the driven piers to support solar panels. Racks would be installed facing due south, and would be spaced approximately 21 feet apart north to south to minimize any shading of the modules by other array rows. Total height of racking would be approximately 9 feet above ground and no more than 13 feet in total height. PV panels would be installed onto the fixed tilt racks and wired in strings of approximately 19 modules. The project would use 330W Hanwha, 72-cell modules, or equivalent Tier 1 modules. The array rows would all be rectangular, but not all solar modules installed would be used for energy production. Non-energy-producing or "dummy" modules would be placed in several locations to ensure a symmetrical appearance in all array rows.
- **DC Collection System.** The DC collection system would carry the "homeruns," or positive and negative tail of each PV panel string, to the inverters, where electricity would be converted from DC to AC. Homeruns are typically housed in wire trays or buried in electrical trenches approximately 2 feet deep.



Source: Sunworks, Inc.

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Figure 2
Project Layout

- **Inverters.** String or central inverters would be used to convert the electricity from DC to AC power. String inverters would be mounted on fixed tilt racks, or on separate driven piers, driven approximately 3 feet deep. Central inverters would be mounted on the equipment pad.
- **AC Collection System.** AC collection wires would carry AC power in underground trenches to the equipment pad, where AC power would be sent into the grid. AC collection trenches are typically 2–3 feet deep and 18 inches wide.
- **Equipment Pad.** Transformers, customer- and utility-owned meters and, if they are used, central inverters would be mounted on the equipment pad. The equipment pad would be a concrete pad approximately 30 by 12 feet and approximately 2 feet deep, placed strategically within the array area to be central to the solar array and close to the point of interconnection (Figure 2). Grounding rods would be driven through or adjacent to the equipment pad in a rectangular formation or other arrangement that meets the National Electrical Code.
- **Point of Interconnection.** The solar array would connect to the City's electrical grid in accordance with City Electric Rule 21 virtual net metering requirements. The point of interconnection would be either near the facility's main meter or at a point along the 480 kilovolt circuit at the site.
- **Septic and Water System.** Because there would be no permanent employees onsite, and because those who visit for operations and maintenance (O&M) activities would use existing Roseville Energy Park facilities, no septic or water system would be necessary as part of the project.
- **Fencing and Security Lighting.** Fencing, consisting of 7-foot-high chain link topped by three-strand barbed wire, would be installed around the perimeter of the site. Security lighting, comprised of 25-foot-high downcast LED luminaires, would be placed at intervals inside the fenced area.
- **Signage.** Onsite signage would meet National Electrical Code and City Fire Department requirements, and would include "Do Not Enter" signs and informational signage providing emergency contact information.
- **Facility Access and Maintenance Roads.** Access to the project site would be provided from Phillip Road along the east side of the energy park facility. The road would be graveled over compacted earth cleared of vegetation and would pass through a locked gate into the solar facility. The gate would be equipped with a KNOX box lock, per adopted Fire Code, to allow emergency vehicle access. Gravel roads would also separate fields of panels and provide access for cleaning and maintenance. The maintenance roads would be maintained for the life of the project through routine grading and placement of overlay gravel material. Roads would be 20 feet wide and would accommodate emergency and fire vehicle access in all weather conditions. The maintenance roads would also

allow emergency personnel to access the project's main disconnect and inverter disconnects.

2.2.1 Construction Approach

Project construction activities are anticipated to begin in 2018, with an anticipated facility operational date in late 2018 (see Section 2.4, *Project Phasing and Schedule*).

Construction activities would take place between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 8:00 p.m. Saturday and Sunday, in compliance with City noise ordinances.

Construction would consist of the following primary phases.

- **Phase 1: Mobilization and Site Layout.** The construction team would set up the construction site, including perimeter fencing, and implement initial construction BMPs.
- **Phase 2: Civil Site Preparation, Road Installation, and Receipt of Construction Materials.** The construction team would conduct minor grading to smooth and contour the site, construct access roads, and stake out trenching and pile locations. Materials needed to construct the solar installation would be received and stored onsite within the construction staging area.
- **Phase 3: Pile Installation.** Piles would be driven or vibrated into the ground to support the solar racking system.
- **Phase 4: Racking and Module Installation and Electrical Work.** The contractor would dig electrical trenches, install racking on piles, and install modules and electrical wiring. This phase would include installation of an approximately 30- by 12-foot equipment pad.
- **Phase 5: Commissioning and Demobilization Activities.** Commissioning activities such as testing to ensure that the system can be connected to the grid would be undertaken, and the system would reach commercial operation. The construction team would conduct post-construction site restoration, including site cleanup activities, removal of any temporary facilities, and implementation of post-construction BMPs.

2.2.2 Earthwork

Grading would consist of minor cuts and fills to smooth the site and ensure positive drainage. Sweepers would be used to keep Phillip Road clean, particularly during material import operations in areas where the frequency and type of truck traffic would warrant such activities. Trucks traffic leaving the site would be required to

pass through a stabilized construction exit designed to minimize offsite sediment tracking.

BMPs described in Section 2.3 would be implemented to control site stormwater runoff and to protect adjacent seasonal wetland systems and nearby waterways.

2.2.2.1 Grading

Because the site slope is approximately 4% and fairly consistent, only minor grading would be necessary to prepare the site. Grading would be achieved using conventional grading equipment. Scrapers would cut and transport onsite soil to areas within the project site. Finish grading would be achieved by motor graders (blades) and skip loaders. Throughout grading operations, water trucks would provide water to the site to achieve the proper moisture content for compaction and dust suppression. During times of excessive wind, grading would be stopped to control dust generation.

2.2.2.2 Material Excavation and Use

The project is expected to be a balanced site requiring limited grading and no import or export of dirt. Material excavation and compaction activities would primarily be required to install roads to meet fire and safety requirements. Within the project site, approximately 3,700 cubic yards (cy) of soil would be moved during grading operations and rebalanced onsite, almost entirely for road construction.

2.2.2.3 Underground Utilities

The underground utilities would be installed using standard underground utility trenching methods. Trenches would be excavated by hand or by a backhoe or similar excavation equipment. Underground utility placement would begin immediately following trench excavation. Where existing utilities are encountered, a minimum clearance of 12 inches would be maintained between the existing utility and the new utility. Generally, if existing utilities are encountered, the new facilities would be placed below the existing utilities so as not to interfere with future maintenance of existing utilities.

2.2.3 Construction Equipment Staging and Access Areas

Equipment and material staging areas would be located north of the water tower and east of the Roseville Energy Park between the proposed access road and existing Energy Park fence line. The staging areas would include fueling and maintenance areas for equipment, along with designated areas for materials. Section 2.3, *Best Management Practices*, outlines the BMPs that would be implemented to minimize potential construction-related water quality impacts on adjacent seasonal wetlands.

The site would be accessed via a gravel road off Phillip Road, along the east side of the energy park. BMPs would be implemented to ensure that the construction site entrance is maintained in compliance with routine inspections by Roseville Electric's project manager and with the requirements of the stormwater pollution prevention plan (SWPPP).

2.2.4 Equipment Installation

Support piles would be installed using a laser-guided pile driving machine. Racking installation would require limited use of a grade-all. Other PV equipment, such as rails, modules, and inverters, would be installed by hand. Electrical equipment would be set either by crane or with the assistance of a grade-all.

2.3 Best Management Practices

Roseville Electric and its contractor would implement the following construction BMPs to avoid or minimize impacts on environmental resources and the public. The following BMPs will also be included in the Mitigation Monitoring and Reporting Plan (MMRP) along with the project mitigation measures identified in Chapter 3.

Temporary Fencing. The contractor will install construction barrier fencing (including sediment fencing or other appropriate water quality BMP mechanisms) to prevent direct and indirect impacts on onsite and adjacent seasonal wetlands. Note that clearance areas around wetlands will also be defined. Before construction begins, Roseville Electric or its contractor will identify the locations for the barrier fencing and mark those locations with stakes or flagging.

SWPPP. Because the project involves disturbance of at least 1 acre of land, a SWPPP will be prepared and implemented as part of the Section 402 National Pollutant Discharge Elimination System State Water Resource Control Board General Permit for Stormwater Discharges associated with Construction and Land Disturbance Activities Permit (Order No. 2009-0009-DWQ, as amended) or other construction general permit in effect at the time of construction. Under the project SWPPP, BMP features will be inspected and maintained throughout project construction, and water quality may be monitored at discharge points.

Equipment. Roseville Electric and its contractor will comply with applicable stormwater ordinances, stormwater management plans, and BMPs to prevent or minimize the potential release of equipment-related petroleum contaminants into surface waters and groundwater. Implementation of standard construction procedures and precautions for working with petroleum and construction chemicals will further ensure that the impacts related to chemical handling during project construction are minor.

Hazardous Materials. Roseville Electric and its contractor will implement appropriate hazardous material management practices and other good housekeeping measures to reduce the potential for chemical spills or releases of contaminants, including any non-stormwater discharge to drainage channels. Implementation of these measures will minimize the potential for surface water and groundwater contamination.

Fire Protection. Interior access roads will conform to City Fire Department and state Fire Code standards. In addition, the project will meet the minimum standards set forth by Public Resources Code Title 14, Section 4290 for fire protection and emergency water standards.

Erosion Control. The project design will incorporate temporary construction and permanent runoff management and erosion control measures to ensure that sediment is retained onsite during construction and that stormwater runoff does not cause soil erosion or affect receiving waters consistent with requirements of the City's Grading Ordinance.

Toxic Materials Control and Spill Response Plan. The following measures will be incorporated into the plan and implemented to avoid or minimize the risk of spills or discharges of toxic materials into the adjacent seasonal wetlands.

- Establish a hazardous material spill prevention control and countermeasure plan before construction.
- Prevent construction materials, oil or other petroleum products, or any other substances that could be hazardous to aquatic life from contaminating the soil or entering adjacent seasonal wetlands.
- Clean up all spills immediately according to the hazardous material spill prevention and countermeasure plan.
- Identify areas located outside seasonal wetlands and other sensitive resource areas for staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants.

Prevent Hazardous Materials from Entering Waters. The construction contractor will notify the Roseville Fire Department if evidence of soil or groundwater contamination is encountered during construction activities.

Noise Control Measures. The following measures will be incorporated into the construction specifications for the proposed project to reduce and control noise generated by construction-related activities, consistent with City of Roseville ordinances and standards.

- Noise-generating construction activities will be restricted to Monday through Friday from 7 a.m. to 7 p.m. and Saturday and Sunday from 8 a.m. to 8 p.m.

- All construction equipment will have sound-control devices no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.
- Appropriate additional noise-reducing measures will be implemented, including the following: stationary construction equipment will be located as far as possible from sensitive uses, sensitive uses will be identified on construction drawings, and equipment idling will be prohibited when the equipment is not in use.

Hazards and Hazardous Materials Measures. The construction documents will identify materials that are considered hazardous. The project contractor will be required to develop a Health and Safety Plan (prepared by a registered industrial hygienist) that addresses release prevention measures; employee training, notification, and evacuation procedures; and emergency response protocols and cleanup procedures.

The contractor will comply with the California Occupational Safety and Health Administration (Cal-OSHA) standards for the storage and handling of fuels, flammable materials, and common construction-related hazardous materials and for fire prevention. Cal-OSHA requirements can be found in California Labor Code, Division 5, Chapter 2.5.

2.4 Project Phasing and Schedule

The project would be implemented in three phases over an approximately 5-month period and would begin in June 2018 (Table 2-1).

Table 2-1. Project Phasing

Construction Activity	Start	End
Mobilization/site layout	06/29/2018	07/12/2018
Civil site preparation/road installation/receipt of construction materials	07/13/2018	08/02/2018
Pile installation	08/03/2018	08/23/2018
Racking and module installation/electrical work	08/24/2018	10/18/2018
Commissioning and demobilization activities	10/19/2018	11/22/2018

2.5 Facility Operations and Maintenance

The proposed project would have limited ongoing O&M requirements. Scheduled maintenance activities would take place twice a year. Maintenance activities would consist of checking electrical performance parameters by remote monitoring, performing periodic inspections and maintenance of transformers and inverters, responding to any problems detected by remote monitoring, conducting weed abatement and dust control activities, cleaning PV panels, and maintaining access roads. Water would be used to clean PV panels and to control dust, but the facility would use no water to produce electricity. Washing activities would take place once per year, on average, or as required by weather events. No heavy equipment is anticipated to be required for maintenance of the facilities except during periodic regrading of access roads.

2.6 Decommissioning

The solar facility would predominantly be composed of PV modules, steel tracking structures, electrical components, and copper wire. Such panels have a functional life of 40 years and are expected to be sold after plant decommissioning. The material composition of the facility, other than the electrical equipment, is directly reusable or recyclable with minimal processing required at decommissioning. The main facility components to be removed from the site and sold or recycled include steel tracker components, PV modules, electrical wire, and major electrical equipment (e.g., inverters, transformers, switchgear). It is anticipated that the building structures onsite would be demolished and sent to a landfill.

2.7 Required Approvals

The only local approvals required to construct and operate the proposed project are adoption of the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Plan by the City Council and approval of a Conditional Use Permit. In addition, the proposed construction activities would trigger Section 402 of the Clean Water Act, which requires coverage under the National Pollutant Discharge Elimination System Permit from the State Water Resources Control Board. Coverage would require development and implementation of a SWPPP. No other state or federal approvals are required for the proposed project.

Chapter 3
Environmental Checklist

1.	**Project Title:**	Roseville Community Solar Pilot Project
2.	**Lead Agency Name and Address:**	City of Roseville 311 Vernon Street Roseville, CA 95678
3.	**Contact Person and Phone Number:**	Mark Morse Environmental Coordinator City Manager's Office (916) 774-5499
4.	**Project Location:**	The project site is 0.15 mile south of Pleasant Grove Creek, and is bordered on the west by the north-south leg of Phillip Road, on the south by the Roseville Energy Park and the east-west leg of Phillip Road, and on the east by undeveloped lands and Coyote Creek. Parcels on which the project would be sited are APNs 017-101-019-0000 and 017-101-020-0000.
5.	**Project Sponsor's Name and Address:**	Roseville Electric Utility 5120 Phillip Road Roseville, CA 95747
6.	**General Plan Designation:**	Public/Quasi-Public
7.	**Zoning:**	Public/Quasi-Public

8. Description of Project:

The Roseville Community Solar Pilot Project would consist of a photovoltaic (PV) solar array to support a 1,103 kilowatt DC, 900 kilowatt AC solar facility that would provide renewable energy to the City's electric grid. The project includes installation of supporting infrastructure and necessary electrical switchgear, transmission lines, and interconnections to the adjacent Roseville Energy Park. The total project area would encompass approximately 5.99 acres.

9. Surrounding Land Uses and Setting:

The area immediately north, west, and east of the project site is undeveloped, with scattered manufactured homes and vacant buildings along unpaved private driveways. Immediately south of the Roseville Energy Park is the Pleasant Grove Water Treatment Plant. The Westpark phase of the *West Roseville Specific Plan* is under construction southwest of the project site.

10. Other Public Agencies Whose Approval is Required:

State Water Resources Control Board—Clean Water Act Section 402, National Pollutant Discharge Elimination System Permit for disturbance of more than 1 acre of land.

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, has consultation begun?

On October 12, 2016, the City of Roseville sent certified letters to the Tribes listed below requesting consultation and/or information regarding tribal resources in the project area. The letters requested a response within 30 days. To date, no responses requesting consultation have been received.

- United Auburn Indian Community of the Auburn Rancheria
- Ione Miwok
- Torres Martinez
- Shingle Springs Band of Miwok Indians
- Tsi' Akim Maidu

No resources that qualify as historical or archaeological resources as defined in State CEQA Guidelines Section 15064.5 were identified. Similarly, no tribal cultural resources were identified through consultation efforts.

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would potentially be affected by this project (i.e., the project would involve at least one impact that is a "Potentially Significant Impact"), as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural and Forestry	☐ Air Quality	☐ Biological Resources
☐ Cultural Resources	☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Tribal Cultural Resources	☐ Utilities/Service Systems	☐ Mandatory Findings of Significance	

3.2 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 to 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 an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Matt Mahan — 5-7-18

Signature Date

3.2.1 Aesthetics

I. Aesthetics	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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 along a scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

Setting

The project site lies within an urbanizing area. Roseville and its environs are generally characterized as a transitional zone between the Central Valley's flat terrain and the Sierra Nevada foothills. On clear days, long-range views in the project vicinity include the Sierra Nevada to the east, the Sutter Buttes to the north, and the Coast Ranges to the west. The project site and nearby undeveloped areas consist of gently rolling, grass-covered topography dotted with oak woodlands and crossed by westward-draining creeks.

The electrical equipment of the existing Roseville Energy Park dominates the view south from the project site. To the east, west, and north, views are characterized by grassland and oak woodlands with scattered, isolated residences in the foreground to middle background. Land designated for future commercial, open space, and residential development under the *West Roseville Specific Plan* borders the project site on the east and west. The area north of the site is designated for development under the *Creekview Specific Plan*. This future development would block long-range views of and from the project site. A riparian corridor borders Pleasant Grove Creek, north of the site.

The primary viewer groups that would have views of the proposed project are employees at the Roseville Energy Park, nearby residents, travelers on adjacent roads, and recreationists using nearby open space facilities. Mature trees and shrubs planted along property lines and along Pleasant Grove Creek to the north and Coyote Creek to the east obscure views of the project site from the north, east,

and west, and the Roseville Energy Park obscures views of the project site from the south.

Impact Analysis

a) Would the project have a substantial adverse effect on a scenic vista?

There are no designated scenic vistas in the project vicinity. The proposed project would consist of a solar array comprising PV panels on racks 9–13 feet high, fencing, security lighting, access roads, and support buildings. The low-lying structures would not be evident beyond the project vicinity. Therefore, the proposed project would have no impact.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?

The project site is not located near or within view of any state or locally designated scenic highway. Further, no scenic resources have been identified in the vicinity of the project site. Therefore, there would be no impact.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Site grading, removal of existing vegetation, and facility construction would introduce heavy equipment, including backhoes, bulldozers, and excavators, into the viewshed of all viewer groups, creating temporary effects on views of and from the project site during the construction period. These activities would be visible from ground-level and elevated vantages. However, the visual effects of construction activities would be less than significant because of their temporary character and the transience of some viewers passing by the project site.

The proposed project would consist of the solar array (including PV panels and mounting hardware), fencing, security lighting, access roads, and support buildings. These facilities would alter the site's visual character and would be visible to residents, energy park employees, and nearby travelers and recreationists. However, the conversion of the project site from undeveloped grassland to a solar power generation plant would be visually compatible with the adjacent Roseville Energy Park and would not permanently degrade either the visual character of the project site or its surroundings. This would be a less-than-significant impact. No mitigation is required.

d) Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

The proposed project would include nighttime security lighting. The conversion of the project site from undeveloped grassland to a solar power generation plant would be

visually compatible with the adjacent Roseville Energy Park and would not create substantial light. Security lighting would consist of 25-foot-high, downcast LED luminaires in order to minimize spillover.

The PV panels could reflect sunlight and cause glare. However, an eight-foot-high fence would surround the solar array, and the panels are designed to absorb rather than to reflect sunlight. Efficient operation of these panels involves maximizing sunlight absorption, leading to a minimization of glare**.** This would be a less-than-significant impact. No mitigation is required.

Mitigation Measures

The proposed project would not result in any potentially significant impacts on aesthetic resources. Therefore, no mitigation measures are necessary.

3.2.2 Agricultural and Forestry Resources

II. Agricultural and Forestry Resources	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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 conflict with 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 that, 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?	☐	☐	☒	☐

Setting

The proposed project site is currently fallow and consists of undeveloped and disked nonnative annual grassland. The project site was historically used for livestock grazing.

According to the California Department of Conservation's 2014 Farmland Mapping and Monitoring Program map for Placer County, the project site is designated as "Urban and Built-Up Land" (California Department of Conservation 2014). Lands to the west, north, and east are designated as "Grazing Land." The site is not restricted to agricultural uses under the California Land Conservation Act of 1965 (Williamson Act). The site is designated Public/Quasi-Public by the *City of Roseville General Plan 2035* and is zoned accordingly.

Impact Analysis

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?

The proposed project site is designated as Urban and Built-Up Land and contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. There would be no impact.

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

The project site is fallow and designated for public or quasi-public use. It is not under Williamson Act contract. Therefore, the proposed project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract. There would be no impact.

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))?

There is no forest land, timberland, or timberland production on the project site. Therefore, the proposed project would not conflict with existing zoning for, or cause rezoning of, these resources. There would be no impact.

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

The project site consists of disked nonnative grassland. Thus, the proposed project would not result in the loss or conversion of forest land. There would be no impact.

e) Involve other changes in the existing environment that, 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?

The project site and land to the south are designated as Urban and Built-Up Land, and they contain no active agricultural uses or forest land. The proposed project would develop a site designated Urban and Built-Up Land. Nearby lands designated as Grazing Land are already planned for development under the *West Roseville Specific Plan* and *Creekview Specific Plan*. Therefore, the impact would be less than significant and no mitigation is required.

Mitigation Measures

The proposed project would not result in any potentially significant impacts on agricultural and forestry resources. Therefore, no mitigation measures are necessary.

References

California Department of Conservation. 2014. *Placer County Important Farmland 2014*. Sacramento, CA.

3.2.3 Air Quality

III. Air Quality	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Setting

The project site is located in the City of Roseville in western Placer County, which is within the Sacramento Valley Air Basin (SVAB). Concentrations of ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and particulate matter (PM10 and PM2.5) are commonly used as indicators of ambient air quality conditions. These pollutants are known as *criteria pollutants* and are regulated by the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (ARB) through national and California ambient air quality standards (NAAQS and CAAQS), respectively. The NAAQS and CAAQS limit criteria pollutant concentrations to protect human health and prevent environmental and property damage. Other pollutants of concern in the project area are nitrogen oxides (NO_X) and reactive organic gases (ROG), which are precursors to ozone, and diesel particulate matter (DPM), which can cause cancer and other human health ailments.

Criteria pollutant concentrations in Placer County and the SVAB are measured at several monitoring stations. The nearest station to the proposed project is the North Sunrise Avenue station, which is approximately 7 miles southeast of the project site. Monitoring data collected at the North Sunrise Avenue station show that the station experienced several violations of the ozone CAAQS and NAAQS and one violation of the PM10 CAAQS from 2014 to 2016 (California Air Resources Board 2017). Data collected from monitoring stations throughout the region, including the North Sunrise Avenue station, are used to designate Placer County as nonattainment, maintenance, or attainment for the NAAQS and CAAQS. Based on the most recent local monitoring data, the SVAB portion of Placer County is currently classified nonattainment for the federal and state ozone standards, nonattainment for the federal PM2.5 standard, maintenance for the federal CO standard, and nonattainment for the state PM10 standard (California Air Resources Board 2016; U.S. Environmental Protection Agency 2017).

The Placer County Air Pollution Control District (PCAPCD) is responsible for ensuring that the NAAQS and CAAQS are met within Placer County. PCAPCD manages air quality through a comprehensive program that includes long-term planning, regulations, incentives for technical innovation, education, and community outreach. For example, the *Sacramento Regional 8-Hour Attainment and Reasonable Further Progress Plan* (Ozone Plan) outlines strategies to achieve the federal ozone standard throughout the entire nonattainment area of the SVAB. PCAPCD has also adopted a number of rules and regulations applicable to individual projects and emissions generating sources within Placer County.

PCAPCD's *CEQA Air Quality Handbook* (2012) provides guidance for evaluating project-level air quality impacts, and PCAPCD's *Review of Land Use Projects under CEQA Policy* (2016) identifies significance thresholds to assist lead agencies in determining criteria pollutant impacts for projects located in Placer County (see Table 3-1). PCAPCD also considers localized CO emissions to result in significant impacts if concentrations exceed the CAAQS. The air district has adopted the following screening criteria that provide a conservative indication of whether project-generated traffic will cause a potential CO hot-spot. If either of the criteria are met, PCAPCD recommends traffic-generated CO concentrations be modeled and compared with the CAAQS to determine impact significance.

- Peak-hour level of service (LOS) on one or more streets or at one or more intersections will be degraded from an acceptable LOS (e.g., A, B, C, or D) to an unacceptable LOS (e.g., E or F).
- Project will substantially worsen an already existing unacceptable peak-hour LOS. *Substantially worsen* includes situations where delay would increase by 10 seconds or more.

PCAPCD's *CEQA Air Quality Handbook* also recommends that DPM be evaluated using the California Air Pollution Control Officers Association's guidance and thresholds, which reflect the probability of contracting cancer for the maximum exposed individual exceeding 10 in 1 million, or the ground-level concentrations of non-carcinogenic PM resulting in a hazard index greater than 1 for the maximum exposed individual (California Air Pollution Control Officers Association 2009).

Table 3-1. Placer County Air Pollution Control District Criteria Pollutant Thresholds (pounds per day)

	Ozone Precursor Emissions		
Source	**ROG**	**NO_X**	**PM10**
Construction (short-term)	82	82	82
Operational (long-term)	55	55	82

Source: Placer County Air Pollution Control District 2016
NO_X = nitrogen oxides
PM10 = particulate matter 10 microns or less in diameter.
ROG = reactive organic gases

Impact Analysis

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

A project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds estimates used to develop applicable air quality plans. Projects that propose development that is consistent with the growth anticipated by the relevant land use plans would be consistent with the current PCAPCD air quality plans. Likewise, projects that propose development that is less dense than anticipated within a general plan (or other governing land use document) would be consistent with the air quality plans because emissions would be less than estimated for the region.

The purpose of the proposed project is to allow for the construction, operation, and maintenance of PV facilities for the long-term generation of clean renewable energy. As discussed in Section 3.2.10, *Land Use and Planning*, and Section 3.2.13, *Population and Housing*, the proposed project would be consistent with current land use and zoning designations and would not induce growth or significantly increase employment in the area. Accordingly, the proposed project would be consistent with recent growth projections for the region and would not conflict with or obstruct implementation of any applicable air quality plan or policy. Therefore, the impact would be less than significant and no mitigation is required.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Construction

Project construction has the potential to create air quality impacts through the use of heavy-duty construction equipment, construction worker vehicle trips, and truck hauling trips. In addition, fugitive dust emissions would result from site preparation and grading. Criteria pollutants generated by these sources were quantified using a combination of emission factors and methodologies from the California Emissions Estimator Model (CalEEMod), version 2016.3.1, ARB's EMFAC2014 model, and EPA's AP-42 *Compilation of Air Pollutant Emission Factors* based on project-specific construction data (e.g., schedule, equipment, truck volumes) provided by the project applicant (Riffey pers. comm.). Appendix A provides a full list of assumptions and emission calculations.

Estimated construction emissions are summarized in Table 3-2. It was assumed that construction would require five phases that occur sequentially between June 2018 and November 2018. Accordingly, emissions associated with each phase are compared individually with PCAPCD thresholds to determine significance.

Table 3-2 Estimated Criteria Pollutant Emissions from Project Construction (pounds per day)

Construction Phase	ROG	NO_X	CO	PM10	PM2.5
Phase 1: Mobilization, site layout, and receipt of construction materials	0.4	8.3	4.3	1.2	0.4
Phase 2: Civil site preparation, road installation, and receipt of construction materials	2.6	27.6	17.1	6.9	3.5
Phase 3: Pile installation	0.5	7.0	2.8	1.3	0.5
Phase 4: Racking and module installation and electrical work	0.3	6.6	3.2	1.8	0.6
Phase 5: Punch list items, commissioning activities, and demobilization activities	0.1	2.4	0.5	0.7	0.2
Worst-case daily: Phase 2	2.6	27.6	17.1	6.9	3.5
PCAPCD threshold	*82*	*82*	-	*82*	-
Exceed threshold?	*No*	*No*	-	*No*	-

CO = carbon monoxide
NO_X = nitrogen oxides
PCAPCD = Placer County Air Pollution Control District
PM2.5 = particulate matter 2.5 microns or less in diameter
PM10 = particulate matter 10 microns or less in diameter.
ROG = reactive organic gases

As shown in Table 3-2, construction of the proposed project would not generate ROG, NO_X, or PM10 emissions in excess of PCAPCD's thresholds. The proposed project would comply with the City's Design and Construction Standards, further reducing fugitive dust emissions during site grading through implementation of BMPs such as application of chemical soil stabilizers, vehicle speed controls, and limits on grading during strong wind events. Because construction emissions would not exceed PCAPCD's significance thresholds, this impact would be less than significant and no mitigation is required.

Operation

Project operation has the potential to create air quality impacts through the use of onsite equipment (e.g., pane-washing rigs) and light-duty crew trucks. Criteria pollutant emissions generated by these sources were estimated using a combination of emission factors and methodologies from the CalEEMod, version 2016.3.1; ARB's EMFAC2014 model; and EPA's AP-42 based on project-specific O&M data provided by the project applicant (Riffey pers. comm.). It is estimated that there would up to four regular O&M round-trips per year accessing the project site. Each O&M trip would involve one vehicle traveling 6 miles each way to and from the project site. O&M activities would consist of checking electrical performance parameters by remote monitoring, performing periodic inspections and maintenance of transformers and inverters, responding to any problems detected by remote monitoring, conducting weed abatement and dust control activities, and maintaining access roads. In addition to the regular four annual O&M trips, the PV panels would be washed up to one time per year. This would involve four trips to the project site using a 500-gallon trailer. These trips would also be 12 miles round trip (6 miles each way). This analysis conservatively assumes the regular O&M and annual panel washing would occur on the same day. Estimated operational emissions are summarized in Table 3-3.

Table 3-3. Estimated Criteria Pollutant Emissions from Project Operation (pounds per day)

Source	ROG	NO_X	CO	PM10	PM2.5
Regular annual O&M trips (4)	<0.01	<0.01	0.03	0.02	<0.01
Panel washing O&M trips (4)	0.01	0.32	0.04	0.12	0.03
Maximum daily operational emissions[a]	0.01	0.33	0.07	0.14	0.04
PCAPCD threshold	*55*	*55*	-	*82*	-
Exceed threshold?	*No*	*No*	-	*No*	-

[a] Analysis conservatively assumes regular O&M and panel washing activities would occur on the same day. Values may not add due to rounding.

CO = carbon monoxide
NO_X = nitrogen oxides
PCAPCD = Placer County Air Pollution Control District
PM2.5 = particulate matter 2.5 microns or less in diameter
PM10 = particulate matter 10 microns or less in diameter.
ROG = reactive organic gases

As shown in Table 3-3, operation of the proposed project would not generate ROG, NO_X, or PM10 emissions in excess of PCAPCD's thresholds. Accordingly, this impact would be less than significant and no mitigation is required.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard

The City, as the CEQA lead agency, relies on a two-tier criteria pollutant cumulative analysis methodology similar to that adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD) as outlined in the SMAQMD *Guide to Air Quality Assessment in Sacramento County*. That is, if a project would not result in significant project-level criteria air pollutant emissions for which the region is designated nonattainment (i.e., exceeds the PCAPCD recommended project thresholds shown in Table 3-1), project emissions would not be considered cumulatively considerable and the project would result in a less-than-significant cumulative impact. Should a project exceed the thresholds, a Tier 2 evaluation is conducted to determine Ozone Plan consistency in accordance with State CEQA Guidelines Section 15064 (h)(3). Under the Tier 2 analysis, projects found consistent with the Ozone Plan and that would not conflict with the Ozone Plan emissions budget are considered to have impacts that would be less than cumulatively considerable. The City finds that this methodology is appropriate for Roseville projects because the City is located within the SVAB, the same air basin where the methodology is utilized by numerous CEQA lead agencies with concurrence and support from SMAQMD.

Neither construction nor operational emissions are anticipated to exceed PCAPCD's project-level thresholds (Tier 1). Accordingly, a Tier 2 evaluation is not required and the project would not result in a cumulatively considerable air quality impact. This impact would be less than significant and no mitigation is required.

d) Expose sensitive receptors to substantial pollutant concentrations

Sensitive receptors are typically defined as facilities that used by children, the elderly, people with illnesses, or others sensitive to the effects of air pollution. Examples of sensitive receptors include residences, hospitals, schools, parks, and places of worship. The project site is immediately adjacent to the Roseville Electric Plant and about 1,000 feet north of the Pleasant Grove Wastewater Treatment Facility. There is one single-family home (which also operates as the Archie & Willa O'Brien's Boarding & Grooming facility for dogs) approximately 450 feet northwest of the project boundary. There are no other sensitive receptors within 1,000 feet of the project site. Future homes may be constructed west of Westbrook Boulevard as part of the Lennar at Carrington development.

Construction

The primary pollutants of concern with respect to health risks to sensitive receptors during construction are localized fugitive dust, naturally occurring asbestos (NOA), and DPM. When inhaled, fugitive dust can irritate the lungs and damage the respiratory tract. NOA and DPM are classified by ARB as carcinogens.

Localized Fugitive Dust

Construction-generated fugitive dust would be minor and primarily limited to grading activities in 2018. Dust emissions would be controlled through adherence to the City's Design and Construction Standards, which require chemical stabilizers and other onsite BMPs. Accordingly, the proposed project would not expose sensitive receptors to substantial fugitive dust concentrations. This impact would be less than significant and no mitigation is required.

Naturally Occurring Asbestos

Projects located in an area "most likely" to contain NOA are required by PCAPCD to prepare and submit a NOA dust mitigation plan. Projects not located within an area "most likely" to contain NOA are required to observe District Rule 228, Fugitive Dust (Placer County Air Pollution Control District 2010).

As identified in the Naturally Occurring Asbestos Hazard map for Placer County, the proposed project is located in an area "least likely to contain NOA" (California Geological Survey 2008). Accordingly, the project is not required to submit an NOA mitigation plan, but must comply with District Rule 228, as specified in the City's Design and Construction Standards. This impact would be less than significant and no mitigation is required.

Diesel Particulate Matter

The single-family home near the project site may be exposed to DPM generated by onsite diesel-powered equipment such as bulldozers and backhoes. As shown in Table 3-2, construction-related PM2.5 emissions would be minor and would not exceed 1.5 pounds per day. These emissions would dissipate as a function of distance and would be lower at the nearest sensitive receptor. Implementation of the City's Design and Construction Standards would also reduce PM2.5 exhaust emissions by limiting vehicle idling times and requiring regular maintenance of construction equipment. Estimated construction emissions would be short-term, occurring for less than 6 months, significantly less than the 30-year exposure period typically associated with chronic cancer health risks.

Given the limited magnitude of construction emissions and short duration of construction activities, the proposed project would not result in an elevated cancer risk to exposed sensitive receptors. Consequently, emissions of DPM are not expected to exceed PCAPCD's health risk thresholds. This impact would be less than significant and no mitigation is required.

Operation

No meaningful source of toxic air contaminant emissions would occupy the project site once the project is operational. Although washing rigs would generate DPM emissions, panel washing would be infrequent, occurring a maximum of 1 day per year. Accordingly, the primary pollutant of concern with respect to health risks to sensitive receptors during operation is localized CO.

Elevated CO concentrations are typically observed at heavily congested intersections where a substantial number of gasoline-powered vehicles idle for prolonged durations throughout the day. The primary health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation. As discussed in the *Setting* section, PCAPCD has developed a set of preliminary screening criteria that can be used to determine whether a project would cause or contribute to CO concentrations that exceed the CAAQS. As discussed in Section 3.2.16, *Transportation/Traffic*, the project would generate minimal traffic during construction and negligible traffic (eight round-trip O&M trips per year) during operations. Accordingly, the project would not violate PCAPCD's CO screening criteria and, consequently, would not expose sensitive receptors to substantial CO concentrations. This impact would be less than significant and no mitigation is required.

e) Create objectionable odors affecting a substantial number of people

Although offensive odors rarely cause any physical harm, they can be unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and air districts. Diesel-powered equipment

operating during construction may generate odors that are evident in the immediately surrounding area. These activities would be intermittent and temporary in duration and, therefore, would not result in nuisance odors. The project does not meet any of the facility types identified by the ARB as odor-generating (California Air Resources Board 2005); thus, the project would not generate substantial operational odors. Accordingly, the proposed project would not create objectionable odors affecting a substantial number of people. This impact would be less than significant and no mitigation is required.

Mitigation Measures

The proposed project would not result in any potentially significant impacts on air quality. Therefore, no mitigation measures are necessary.

References Cited

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3.2.4 Biological Resources

IV. Biological Resources	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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 Game or 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 Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, 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?	☐	☐	☐	☒

Methods

This biological resources section is based on a review of standard sources, biological surveys conducted on February 27 and May 5, 2017, and biological information provided by Salix Consulting, Inc. (see biological resources letter in

Appendix A). During the 2017 early spring and late spring field surveys, an ICF biologist walked the site and surveyed for special-status plants and wildlife species that were identified as having the potential to occur in the project region.

The following sources of information were reviewed to support this analysis.

- A list of sensitive species from the California Natural Diversity Database (CNDDB) records search for the U.S. Geological Survey (USGS) 7.5-minute Roseville and adjacent quadrangles (California Department of Fish and Wildlife 2017).
- California Native Plant Society's (CNPS's) *Inventory of Rare and Endangered Plants of California* for the same USGS quadrangles listed above (California Native Plant Society 2017).
- Regulatory Guidance for Phase I letter from Salix Consulting, Inc. to Roseville Electric (January 24, 2018 (Appendix A).

This information was used to develop lists of sensitive species and vegetation communities of special concern that could be present in the project vicinity, and to determine the potential for wetlands to occur on the project site as well as past mitigation implemented for indirect effects on existing potential habitat for federally listed branchiopods.

Setting

The proposed project site is dominated by nonnative annual grasslands. The annual grasslands are dominated by nonnative annual grasses and forbs such as ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), yellow star-thistle (*Centaurea solstitialis*), and Medusahead (*Elymus caput-medusae*). Other species commonly found in annual grasslands in the project vicinity are Italian ryegrass (*Festuca perennis*), soft chess (*Bromus hordeaceus*), foxtail barley (*Hordeum murinum* ssp. *leporinum*), California poppy (*Eschscholzia californica*), and filaree (*Erodium* spp.).

The grassland provides habitat for a variety of species, including black-tailed hare (*Lepus californicus*), Botta's pocket gopher (*Thomomys bottae*), fox squirrel (*Sciurus niger*), and coyote (*Canis latrans*). Common bird species that occur in the area include mourning dove (*Zenaida macroura*), western scrub-jay (*Aphelocoma californica*), acorn woodpecker (*Melanerpes formicivorus*), bushtit (*Psaltriparus minimus*), northern flicker (*Colaptes auratus*), American crow (*Corvus brachyrhynchos*), red-tailed hawk *(Buteo jamaicensis*), and turkey vulture (*Cathartes aura*).

As described in the biological resources letter and shown in the figure in Appendix A, seasonal wetlands and swales occur on and adjacent to the project site.

Special-Status Species

For the purpose of this initial study, special-status species are plants and animals that are legally protected under the federal Endangered Species Act (ESA), California Endangered Species Act (CESA), or other regulations, and species that are considered sufficiently rare by the scientific community to qualify for such listing. Special-status plants and animals are those species in any of the categories listed below.

- Species listed or proposed for listing as threatened or endangered under the federal ESA (50 Code of Federal Regulations 17.11 [listed animals], 50 Code of Federal Regulations 17.12 [listed plants], and various notices in the Federal Register [proposed species]).
- Species that are candidates for possible future listing as threatened or endangered under the federal ESA (80 Federal Register 80584, December 24, 2015).
- Species listed or proposed for listing by the State of California as threatened or endangered under CESA (14 California Code of Regulations 670.5).
- Species that meet the definitions of rare or endangered under CEQA (State CEQA Guidelines Section 15380).
- Plants listed as rare under California Native Plant Protection Act (California Fish and Game Code 1900 et seq.).
- Plants with a California Rare Plant Rank of 1 or 2.
- Animal species of special concern to CDFW.
- Animals fully protected in California (California Fish and Game Code Section 3511 [birds], Section 4700 [mammals], Section 5050 [amphibians and reptiles], and Section 5515 [fish]).

Based on a review of this information and surveys conducted by ICF, the project site and adjacent areas that contain seasonal wetlands and swales support potential habitat for the following special-status species.

- **Vernal pool fairy shrimp (*Branchinecta lynchi*)—federally listed as threatened**. Suitable habitat occurs in seasonal wetlands within and adjacent to the project site (see Areas A, B, and C in Figure 2).
- **Western burrowing owl (*Athene cunicularia*)—California species of special concern.** No signs of burrowing owls were found during the field surveys. However, annual grassland on and adjacent to the project site represents suitable habitat for the species.

- **Northern harrier (*Circus cyaneus*)—California species of special concern.** Suitable nesting and foraging habitat is present in annual grassland within and adjacent to the project site.
- **Swainson's hawk (*Buteo swainsoni*)—state-listed as threatened.** Suitable foraging habitat is present on and adjacent to the project site. No potential nest trees are present on the project site; however, numerous trees that could support nesting Swainson's hawks are present within 0.5 mile of the site.
- **White-tailed kite (*Elanus leucurus*)—California fully protected**. Suitable foraging habitat is present on and adjacent to the project site. No potential nest trees are present on the project site; however, numerous trees that could support nesting white-tailed kites are present within 0.5 mile of the site.

In addition to special-status species, non-special-status migratory birds and raptors could nest on or adjacent to the project site, and their occupied nests and eggs are protected by California Fish and Game Code Sections 3503 and 3503.5 and the federal Migratory Bird Treaty Act (MBTA).

No special-status plants have been previously documented on the project site and none were located during the 2017 ICF botanical surveys or surveys conducted by Salix Consulting Inc. Therefore, special-status plants are not discussed further in this section.

Impact Analysis

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 Game or U.S. Fish and Wildlife Service?

Work on the project site could directly or indirectly (through habitat modification) affect wildlife species identified as special-status species in local or regional plans, policies, or regulations, or by CDFW, NMFS, or USFWS. The following species could be affected.

Vernal Pool Fairy Shrimp. Although no suitable vernal pool fairy shrimp habitat is present within the proposed development portion of the project site, seasonal wetlands on and adjacent to the project site (Figure 2) support suitable habitat for this federally threatened species (see figure and discussion in Appendix A). Although the project has been designed to avoid these wetlands, they could be inadvertently filled or indirectly affected without the appropriate authorizations and mitigation. This would be considered a significant impact.

The City commissioned Salix Consulting, Inc., to review existing field conditions and previous federal permitting and mitigation efforts to identify a Phase 1 project site

that could be developed without the need for additional Clean Water Act Section 404 permitting or related ESA Section 7 consultation. As shown in Figure 2, the current proposed site plan includes onsite avoidance of Area A wetlands (SW-25, SW-26, and SW-27 as identified in Appendix A) and offsite avoidance of the Area B wetland (SW-22 as identified in Appendix A). Mitigation for indirect impacts on these wetlands was previously implemented as discussed in the biological resources letter (Appendix A). In addition, offsite wetlands within Area C (SW-23, SW-24, and WS-2 in Appendix A) would be subject to a 25-foot no-disturbance buffer and water quality BMPs to ensure that indirect impacts on these wetlands would be avoided. Should any wetlands considered vernal pool fairy shrimp habitat be directly or indirectly affected that were not previously mitigated, the impact would be considered significant. The City will implement Mitigation Measure BIO-1 to ensure that potential impacts on federally listed vernal pool fairy shrimp remain less than significant.

Special-Status and Non-Special-Status Migratory Birds and Raptors. Ground-nesting migratory birds and raptors could nest in and adjacent to the project site, including the burrowing owl and northern harrier (both California species of special concern). While no trees exist on the project site, riparian and oak woodland habitats in the vicinity of the project site contain numerous trees that provide suitable nesting habitat for raptor species, including Swainson's hawk (state-listed as threatened) and white-tailed kite (fully protected). Implementation of the proposed project could result in removal or disturbance of occupied bird or raptor nests during the breeding season (generally March 1–August 30). Construction activities during the breeding season that result in death of young or loss of reproductive potential would violate California Fish and Game Code Section 3503 (active bird nests) and Section 3503.5 (active raptor nests) and the MBTA. This impact would be significant. The City will implement Mitigation Measure BIO-2 to reduce this impact 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 Game or U.S. Fish and Wildlife Service?

The proposed project would not have a substantial adverse effect on any riparian habitat or sensitive natural community because none occurs on the proposed development portion of the project site. There would be no impact.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

The proposed project has been designed to avoid direct and indirect effects on federally protected wetlands. The project site and adjacent areas contain seasonal

wetlands (within Areas A, B, and C in Figure 2); however, direct and indirect effects on these wetlands and associated habitat for federally listed branchiopods would be avoided through the implementation of Mitigation Measure BIO-1. Therefore, there would be no substantial adverse effect on federally protected wetlands.

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?

The proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. There would be no impact.

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

The proposed project would not conflict with any local policies or ordinance protecting biological resources, including Chapter 19.66 (Tree Preservation) in the Roseville Municipal Code. The project site does not support native oaks that would meet the City's definition of protected trees. There would be no impact.

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?

There are no approved habitat conservation plans, natural community conservation plans, or other adopted plans that would apply to the proposed project. Accordingly, there would be no impact.

Mitigation Measures

Mitigation Measure BIO-1: Implement Wetland Avoidance Measures

The following measures shall be incorporated into the project design and construction documents as wetland impact minimization measures:

- No ground disturbance shall occur within 5 feet of delineated wetlands.
- Solar panels shall be located in such a way that runoff from the panels does not pour directly into a delineated wetland.
- All work shall occur in the dry season (typically May through October) to prevent sediment from entering existing wetlands.

- The outer boundary of the work area shall be clearly marked by temporary construction fencing to prevent unintentional fill of wetlands outside of the project boundary.
- Access roads to and from the work site shall be clearly marked to limit the possibility of unintentionally affecting existing wetlands.
- Only rubber-tired vehicles shall be used to construct the proposed project.
- Any questions about wetland boundaries or allowed activities shall be directed to a qualified biologist.

To ensure that there are no unauthorized direct or indirect impacts on either on- or offsite wetlands and associated habitat for invertebrate species, the following measures shall be implemented (as outlined in the Salix Consulting, Inc. Regulatory Guidance for Phase I letter dated January 24, 2018 - see Appendix A).

- A qualified biologist shall clearly mark the boundaries of wetlands SW-25, SW-26, and SW-27 (as identified in the biological resources letter) on the project site. Silt and temporary construction fencing shall be installed around these wetlands to form a minimum 5-foot no-entry/no-disturbance buffer as identified in the biological resources letter.
- A qualified biologist shall clearly mark the boundaries of wetlands SW-24, SW-23, and WS-2 (as identified in the Salix letter) that are offsite but within the Potential Future Impact Area. Silt and temporary construction fencing shall be installed around these wetlands to form a minimum 25-foot no-entry/no-disturbance buffer as identified in the biological resources letter.

Mitigation Measure BIO-2: Construct the Project during the Nonbreeding Season or Conduct Pre-Construction Surveys for Nesting Migratory Birds and Raptors

Where vegetation removal is required to construct project features, the City will conduct this activity during the nonbreeding season for migratory birds and raptors (generally between September 1 and February 28), to the extent feasible.

If construction activities (including vegetation removal) cannot be confined to the nonbreeding season, the City will retain a qualified wildlife biologist with knowledge of the relevant species to conduct nesting surveys before the start of construction. The migratory bird and raptor nesting surveys will include a minimum of two separate surveys to look for active migratory bird and raptor nests. Surveys will include a search of all vegetation that provides suitable nesting habitat in the construction area. In addition, a 500-foot area around the construction area will be surveyed for raptors (including burrowing owl) and a 100-foot area around the construction area will be surveyed for song birds. In

addition, solitary trees and woodland habitats within 0.5 mile of the project site will be surveyed for nesting Swainson's hawks. For survey areas outside the project site, the surveyors will walk areas where property access is authorized. For portions of the survey area without property access, the biologist will scan vegetation using binoculars from the project site or from public roads. One survey should be conducted no more than 14 days prior to construction and the second survey should be conducted within 48 hours prior to the start of construction or vegetation removal. If no active nests are detected during these surveys, no protective measures are required.

If an active nest is found in the survey area, a no-disturbance buffer will be established around the nest site to avoid disturbance or destruction of the nest until the end of the breeding season (August 31) or after a qualified wildlife biologist determines that the young have fledged and moved out of the nesting substrate (this date varies by species). The extent of these buffers will be determined by the biologist and will depend on the level of construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species but will be established a minimum of 50 feet from active construction and may extend up to 500 feet depending on the species.

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California Native Plant Society, Rare Plant Program. 2017. *Inventory of Rare and Endangered Plants of California* (online edition, v8-03 0.39). Accessed at: http://www.rareplants.cnps.org Accessed on: July 25, 2017.

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U.S. Fish and Wildlife Service. 2017. *IPaC Resource List*. Accessed at: https://ecos.fws.gov/ipac/. Accessed on July 27, 2017.

3.2.5 Cultural Resources

V. Cultural Resources	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Setting

The project site is located in the City of Roseville, just north of the Roseville Energy Park on Phillip Road and south of the future Blue Oaks Boulevard westward extension. Pleasant Grove Creek is located approximately 0.15 mile north of the project site. The project site is approximately 5.99 acres and is located within the Pleasant Grove 7.5-minute USGS topographic quadrangle map in Section 23 of Township 11 North, Range 5 East, Mount Diablo Base and Meridian. The area west, south, and east of the project site is rural in character and in the process of being developed as part of the *West Roseville Specific Plan*.

Records Search

A records search for the project site and a 0.5-mile radius around it was conducted at the North Central Information Center of the California Historical Resources Information System on February 18, 2017. The records search indicated that 11 previous cultural resources studies have been conducted encompassing the site and nearly all of the 0.5-mile radius. The records search also identified six previously recorded cultural resources within 0.5 mile of the proposed project. No previously recorded cultural resources, however, were noted within the project site. One prehistoric site (P-31-263) was identified within 0.5 mile of the project site and was reported to contain remnants of stone tool manufacture and groundstone.

Records searches were conducted for adjoining areas as part of the *West Roseville Specific Plan* and *Creekview Specific Plan* EIR processes. A records search was conducted in 2001 for the *West Roseville Specific Plan* SOI Amendment Area EIR. Records searches were conducted in 2006 and 2010 for the *Creekview Specific Plan* EIR. These records searches identified a variety of cultural resources within the

West Roseville Specific Plan SOI and the Creekview Specific Plan areas. According to the *West Roseville Specific Plan* SOI Amendment Area EIR and the Creekview Specific Plan EIR, these resources have been described and mapped to identify individual sites.

The Fiddyment Ranch, approximately 0.4 mile southeast of the project site, is a ranch complex dating to circa 1879 that has been used as a homestead and for various agricultural operations for nearly 150 years. It is the oldest continually operating family ranch in Roseville. The ranch complex is still in operation today and appears eligible for listing in the National Register of Historic Places and the California Register of Historic Resources.

Native American Consultation

The Native American Heritage Commission (NAHC) was contacted on March 10, 2017, to request a search of its sacred lands file and a list of interested Native American tribes and individuals. On April 19, 2017, NAHC responded, stating that the sacred lands file has no record of any recorded sacred lands in the immediate vicinity of the project site. NAHC also provided a list of five Native American contacts who might be interested in the project. On May 30, 2017, letters were sent to all five contacts.

Field Survey

A pedestrian surface survey of the project site was conducted on February 27, 2017, using zig-zag transects approximately 15 meters apart. Most of the site was covered in dense grasses and annuals up to 12 inches in height. Some areas were inaccessible due to standing water (i.e., seasonal wetlands).

Several fragments of unidentifiable metal were found near a segmented concrete pad. The concrete pad or foundation measures approximately 33 by 24 feet and consists of coarse aggregate concrete.

A pile of discarded tires and a trash dump were also identified approximately 100 feet west of the concrete pad. The dump consists of a pile of bricks, pieces of concrete, several wood planks, rubber hose and gasket, several cinder blocks, and a large fragment of porcelain, possibly from a toilet or sink.

Historic Map Research

Historic map research included analyzing the 1967 and 1981 USGS Pleasant Grove 7.5-minute topographic quadrangle maps as well as Google Earth historic imagery to determine what structures or other land uses occurred within the project site.

According to historic maps, the concrete pads appear to have been constructed sometime between 1968 and 1981. There is no evidence of them or a structure at

this location before 1968 (Google Earth 2017 and Historic Aerials 2017). Concrete foundation pads are common in agriculture and ranching operations.

The tire and trash dump first appear on historic aerials in 2006 (Historic Aerials 2017). In addition, the materials do not appear to be historic and were likely dumped at their present location in the last 12 years.

Impact Analysis

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Although no cultural resources were identified, it is possible that historic resources, particularly those associated with agriculture and the Fiddyment Ranch, are located within the project site. Should these resources qualify as historical resources as defined in State CEQA Guidelines Section 15064.5, effects on them would be a significant impact. If any buried historical resources were encountered and damaged during construction, the destruction of buried historical resources would be a potentially significant impact. Implementation of Mitigation Measure CUL-1 would reduce this impact to a less-than-significant level.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

There are no known cultural resources located on the proposed project site. However, site P-31-263 is located immediately adjacent to the project site, and the records search indicates that other prehistoric sites are in the vicinity. Therefore, it is possible that buried archaeological materials are present. If any buried resources were encountered and damaged during construction, the destruction of buried archaeological resources would be a potentially significant impact. Implementation of Mitigation Measure CUL-1 would reduce this impact to a less-than-significant level.

c) Disturb any human remains, including those interred outside of formal cemeteries?

There are no known formal cemeteries within the project site, and neither the results of the records search nor the pedestrian survey indicates that human remains are present on the project site. However, there is always the possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains; such disturbance would be a potentially significant impact. Implementation of Mitigation Measure CUL-2 would reduce this impact to a less-than-significant level.

Mitigation Measures

Mitigation Measure CUL-1: Implement Measures to Protect Previously Unidentified Cultural Resources

The City shall ensure that construction specifications include the following information in the grading notes.

- Construction shall stop if potential cultural resources are encountered. It is possible that previous activities have obscured surface evidence of cultural resources. If signs of an archeological site, such as any unusual amounts of stone, bone, or shell, are uncovered during grading or other construction activities, work will be halted within 100 feet of the find and the City of Roseville will be notified. A qualified archeologist will be consulted for an onsite evaluation. If the site appears to be eligible for listing in state or federal registers, additional mitigation, such as further testing for evaluation or data recovery, may be necessary.
- In the event resources are discovered, the City will retain a qualified archaeologist to assess the find and to determine whether the resource requires further study. Any previously undiscovered resources found during construction will be recorded on appropriate California Department of Parks and Recreation 523 forms and evaluated for significance under all applicable regulatory criteria.
- All work will stop in the immediate vicinity of the find, and, if the find is determined to be an important cultural resource, the City will make available contingency funding and a time allotment sufficient to allow recovery of an archaeological sample or to implement an avoidance measure. Construction work may continue on other parts of the project while archaeological mitigation takes place.

Mitigation Measure CUL-2: Implement Measures if Construction Activities Inadvertently Discover or Disturb Human Remains

The City shall ensure that construction specifications include the following in the grading notes.

- If human remains are discovered during any phase of construction, including disarticulated or cremated remains, the construction contractor will immediately cease all ground-disturbing activities within 100 feet of the remains and notify the City of Roseville.
- In accordance with California State Health and Safety Code Section 7050.5, no further disturbance will occur until the following steps have been completed:

  - The County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98.
  - If the remains are determined by the County Coroner to be Native American, NAHC will be notified within 24 hours, and the treatment and disposition of the remains will comply with NAHC guidelines.
- It is further recommended that a professional archaeologist with Native American burial experience conduct a field investigation of the specific site and consult with the Most Likely Descendant (MLD), if any, identified by NAHC. As necessary and appropriate, a professional archaeologist may provide technical assistance to the MLD, including excavation and removal of the human remains.

References

City of Roseville. 2004. *West Roseville Specific Plan and Sphere of Influence Amendment Area Environmental Impact Report*. Roseville, California.

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3.2.6 Geology and Soils

VI. Geology and Soils	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
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 Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
Strong seismic ground shaking?	☐	☐	☒	☐
Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐		☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Setting

The project site is level to slightly undulating and generally slopes downward to the north at approximately 4%. The elevation is approximately 85 feet above mean sea level.

The project site is in the Great Valley geomorphic province (California Geological Survey 2002a). Thick sequences of alluvial (water-deposited) sediments derived from erosion of the Sierra Nevada typify the geological formations on the east side of the Sacramento Valley, where the site is located.

The project site is underlain by the Riverbank Formation (map symbol Qr) (California Geological Survey 2011), which consists of moderately weathered, reddish arkosic sediments composed of unconsolidated to semi-consolidated gravel, sand, and silt. These sediments form dissected alluvial terraces and fans that developed along the eastern margin of the Sacramento Valley between 150,000 and 450,000 years ago (City of Roseville 1995).

The project site is not within an Alquist-Priolo Earthquake Fault Zone, and there are no known active faults at the project site (California Geological Survey 2017a). Therefore, the potential for surface rupture to occur at the project site is low.

The project site lies between the seismically active Coast Ranges and the historically seismically active Foothills fault zone in the Sierra Nevada. The primary seismic hazard to the project site is associated with ground shaking from more distant faults, such as the San Andreas fault and the closer Hayward fault, which have the potential for generating strong seismic shaking. USGS has estimated that there is a 62% probability of at least one 6.7 or greater magnitude earthquake occurring that could cause widespread damage in the greater San Francisco Bay area before 2032 (City of Roseville 2005).

Another potential earthquake source is the faults associated with the western edge of the Central Valley, recently defined as the Coast Range Central Valley (CRCV) boundary thrust fault system. Various documents define portions of this little known system as the Midland Fault Zone or the Dunnigan Hills fault, where the 1892 Vacaville-Winters earthquake occurred (City of Roseville 2005).

The Foothill Fault Zone, a complex series of northwest-trending faults that are related to the Sierra Nevada uplift, and whose activity also is little understood, extends from about Oroville in the north to east of Fresno in the south. Earthquakes on nearby faults in the zone can be the source of ground shaking in the greater Sacramento area. The closest potentially active faults to the project site are the Bear Mountain and Melones faults (City of Roseville 2005), located roughly 20 and 33 miles east of Roseville, respectively (California Geological Survey 2002b).

Three inactive faults have been mapped in the immediate vicinity of Roseville (City of Roseville 2005).

- The Volcano Hill fault extends northwest from Volcano Hill for a distance of 1 mile, terminating near Eureka Road. No activity has been recorded along this fault; therefore, it is considered inactive.

- The Linda Creek fault (identified in 1973) is located along Linda Creek in Roseville and Sacramento County. No activity has been recorded along this fault.
- An unnamed fault extends east to west between Folsom Lake and the City of Rocklin. Segments of the fault are concealed and consequently unmapped. However, the east/west alignment suggests that the fault could connect to Bear Mountain faults, branches of which are located beneath Folsom Lake. No evidence of movement has been identified along the unnamed fault.

The project site is classified as being in a low-severity earthquake shaking zone (California Geological Survey 2016). The maximum peak ground acceleration that can be expected to occur at the site based on a return period of 2% in 50 years is 0.258g, where 1 g is equal to the force of gravity (California Geological Survey 2017b).

Liquefaction is the loss of soil strength as a result of seismic forces acting on water-saturated, granular soils having low cohesion. During seismic shaking, the soil behaves like a liquid, causing a reduction in its bearing strength. The potential for liquefaction is based on soil particle size and density, depth to the groundwater table, and duration and intensity of ground shaking. Liquefaction most commonly occurs in low-lying areas of poorly consolidated to unconsolidated water-saturated sediments or similar deposits (California Geological Survey 2008). The project site's potential for liquefaction and associated secondary effects is expected to be relatively low because of its distance from ground shaking sources and the semi-consolidated condition of the Riverbank Formation. However, as required by the City of Roseville building permit process, the actual hazard is required to be assessed in a site-specific and formal geotechnical investigation.

Based on the shallow slopes, landslides and other forms of slope instability are not expected to exist at the site.

Most of the near-surface (i.e., approximately 60 inches) soils at the project site consist of Cometa-Ramona sandy loams, 1 to 5 percent slopes (Rogers 1980). This soil map unit poses no significant constraints to site development that cannot be overcome using conventional construction approaches and engineering design. Table 3-4 summarizes the characteristics of the two soil map units on the site that are relevant to potential near-surface soil hazards and potential impacts.

Expansive soils are those that greatly increase in volume, or swell, when they absorb water and shrink when they dry out. Expansion may damage building foundations, concrete slabs, hardscaping, pavement, and other improvements on or near the surface. Part of the project site is underlain by a subsoil (Rogers 1980) that would be considered expansive, as defined in Table 18-1-B of the Uniform Building Code.

The near-surface soils have moderately slow or very slow permeability, and in some areas a shallow perched water table may form for brief periods during the rainy season (Rogers 1980).

Vertebrate fossils have been found in the Riverbank Formation in the Sacramento area and other locations. For example, fossil specimens recovered from excavations at the Arco Arena north of Sacramento in the Riverbank Formation included specimens of Harlan's ground sloth, bison, coyote, horse, camel, squirrel, antelope or deer, mammoth, and several plant species. Additionally, a Pleistocene-age mammoth specimen was recovered from the Riverbank Formation during excavation for a natural gas line in Elk Grove in Sacramento County (City of Roseville 2013). The Riverbank Formation is therefore considered paleontologically sensitive.

Table 3-4. Summary of Soil Characteristics

Soil Map Unit Name (Map Symbol)	Generalized Profile	Drainage Class	Water Erosion Hazard	Wind Erosion Hazard[a]	Expansion Potential in Upper 60 Inches[b]
Cometa-Ramona sandy loams, 1 to 5% slopes (142)	Cometa—sandy loam over sandy clay over sandy loam sediments Ramona—sandy loam and loam over sandy clay loams	Well	Slight	3	Low to high
Xerofluvents, hardpan substratum (195)	Stratified loams and clay loams over duripan	Somewhat poor	Slight	7	Low

Sources: Rogers (1980), Natural Resources Conservation Service (2017).

[a] Wind erosion hazard represented by wind erodibility group (WEG). A WEG consists of soils that have similar properties affecting their susceptibility in cultivated areas. The soils assigned to Group 1 are the most susceptible to wind erosion, and those assigned to Group 8 are the least susceptible.

[b] Expansion potential as represented by shrink-swell potential.

Impact Analysis

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

1. 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 Division of Mines and Geology Special Publication 42.

Because the project site is not located in an Alquist-Priolo Earthquake Fault Zone, the hazard of fault rupture at the project site is low. Therefore, there would be no impact.

2. Strong seismic ground shaking?

The project site is not located in an area that is subject to strong seismic ground shaking. Therefore, the impact would be less than significant and no mitigation is required.

3. Seismic-related ground failure, including liquefaction?

The potential for liquefaction to occur at the project site is unknown. However, as described in the WRSP SOI Amendment Area EIR and as required by the City's building permit process, a site-specific, formal geotechnical investigation would be required to assess the potential for seismically related ground failure, including liquefaction, to occur. The plan would recommend any necessary special design and construction methods to avoid potential effects on life and property. Therefore, the impact would be less than significant and no mitigation is required.

4. Landslides?

Because there are no known landslides on the project site and considering the site's gentle slopes and limited ground shaking potential, the hazard of a seismically induced landslide occurring at the site is probably very low. Therefore, the impact would be less than significant and no mitigation is required.

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

The soils underlying the project site have a slight water erosion hazard. Project construction activities would entail soil disturbance over large areas, but this is not expected to case substantial accelerated soil erosion, especially because of the erosion and sediment control BMPs that must be implemented to comply with the state stormwater General Permit for Construction and Land Disturbance Activities. (See Section 3.2.9, *Hydrology and Water Quality*, for a more detailed discussion of BMPs and General Permit compliance.)

Relatively small areas of topsoil would be lost as a result of overcovering by the proposed project.

The 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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

Because the Riverbank Formation generally consists of semi-consolidated sediments and given the gentle slopes on the site, there appear to be no unstable ground conditions present. The 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), creating substantial risks to life or property?

As described above, part of the project site is underlain by a subsoil (Rogers 1980) that would be considered expansive, as defined in Table 18-1-B of the Uniform Building Code. However, it is not expected that the proposed project would create substantial risks to life or property related to the expansive subsoil. There would be no impact.

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

No septic tanks or alternative wastewater disposal systems are proposed for the project. Therefore, there would be no impact.

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

The Riverbank Formation, which underlies the project site, is known to be sensitive for paleontological resources. Excavation work to construct the project could directly or indirectly destroy such resources or alter their stratigraphic context. The impact could be significant. The City will implement Mitigation Measures GEO-1 and GEO-2 to reduce this potential impact to a less-than-significant level.

Mitigation Measures

Mitigation Measure GEO-1: Cease Work until Review Conducted by Qualified Paleontologist and Recommendations Implemented

Should evidence of sensitive paleontological resources (e.g., fossils) be encountered during grading or excavation, work shall be suspended within 100 feet of the find, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate all necessary investigation of the site with a qualified paleontologist to assess the resource and provide proper management recommendations. Possible management recommendations for sensitive resources could include resource avoidance or data recovery excavations. The contractor shall implement any measures deemed necessary by the paleontologist for the protection of sensitive paleontological resources.

Mitigation Measure GEO-2: Prepare and Implement a Worker Education Program for Those Involved with Earthwork

A worker education program, prepared by a qualified professional paleontologist, shall review applicable local, state, and federal ordinances, laws, and regulations pertaining to paleontological resources; describe the types of fossils that can be

encountered and their general appearance; discuss site avoidance requirements and notification procedures to be followed in the event that a sensitive paleontological resource is found during construction; and describe disciplinary and other actions that can be taken against persons violating such laws.

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3.2.7 Greenhouse Gas Emissions

VII. Greenhouse Gas Emissions	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☒	☐

Setting

Climate change is a complex phenomenon that has the potential to alter local climatic patterns and meteorology. Increases in anthropogenic GHG) emissions have been unequivocally linked to recent warming and climate shifts (Intergovernmental Panel on Climate Change 2007). Although modeling indicates that climate change will result globally and regionally, there remains uncertainty with regard to characterizing the precise *local* climate characteristics and predicting precisely how various ecological and social systems will react to any changes in the existing climate at the local level. Regardless of this uncertainty in precise predictions, it is widely understood that some degree of climate change is expected as a result of past and future GHG emissions.

The most common GHGs resulting from human activity are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). State CEQA Guidelines also define GHGs to include perfluorinated carbons, sulfur hexafluoride, and hydrofluorocarbons. Unlike criteria air pollutants, which occur locally or regionally, the long atmospheric lifetimes of these GHGs allow them to be well mixed in the atmosphere and transported over distances. Within California, transportation is the largest source of GHG emissions (39% of emissions in 2015), followed by industrial sources (23%) (California Air Resources Board 2017).

Although there is currently no federal law specifically related to climate change or the reduction of GHGs, EPA has adopted regulations and proposed performance standards for electric power plants under the Clean Air Act. California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation. Much of this establishes a broad framework for the state's long-term GHG reduction and climate change adaptation program. Of particular importance is Assembly Bill (AB) 32 and Senate Bill (SB) 32, which establish statewide goals to reduce GHG emissions back to 1990 levels by 2020 and 40%

below 1990 levels by 2030, respectively. Although not legislatively adopted, the governor has also issued Executive Order (EO) S-3-05, which aims to reduce statewide emissions by 80% below 1990 levels by 2050.

As discussed in Section 3.2.3, *Air Quality*, PCAPCD has the primary responsibility for air quality management in Placer County. PCAPCD (2016) has adopted a *de minimis* threshold of 1,100 metric tons carbon dioxide equivalent (CO_2e) for operation of land use development projects, such as new residential and commercial projects. The air district also has a bright line threshold of 10,000 metric tons CO_2e, where land use development projects in excess of the *de minimis* threshold (1,100 metric tons CO_2e) can be found less than cumulatively considerable if the emission intensity (emissions per capita) meets certain criteria. While not explicitly applicable to renewable energy projects, this analysis considers the 1,100 and 10,000 metric ton thresholds as GHG benchmarks.

Impact Analysis

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

Construction of the proposed project would generate emissions of CO_2, CH_4, and N_2O from mobile and stationary construction equipment exhaust and employee and haul truck vehicle exhaust. Emissions were estimated using the methods described in Section 3.2.3, *Air Quality*; the results are summarized in Table 3-5. Please refer to Appendix A for complete construction assumptions and calculation spreadsheets.

Table 3-5. Estimated Greenhouse Gas Emissions from Project Construction (metric tons)

Construction Year	CO_2	CH_4	N_2O	CO_2e[a]
2018 (*Total emissions*)	49.4	0.01	<0.01	50.0

[a] Refers to carbon dioxide equivalent, which includes the relative warming capacity (i.e., global warming potential) of each greenhouse gas.

CH_4 = methane

CO_2 = carbon dioxide

N_2O = nitrous oxide

Once operational, the project would result in GHG emissions from onroad truck trips. Emissions were estimated using the methods described in Section 3.2.3, *Air Quality*. The project would also result in an increase in renewable energy generation (1,835 megawatt-hours [MWh] per year) that would offset electricity produced by the statewide grid, which is generated in part by fossil-fueled sources (e.g., natural gas facilities). Reduced emissions from displaced statewide electricity were calculated assuming grid-average emission factors from the EPA (2017). The net effect on operational emissions is presented in Table 3-6.

Table 3-6. Estimated Annual Greenhouse Gas Emissions from Project Operation (metric tons per year)

Source	CO_2	CH_4	N_2O	CO_2e[a]
O&M activities	0.11	<0.01	<0.01	0.11
Displaced grid energy[c]	-432.93	-0.03	<0.00	-434.51
Net emissions[b]	-432.82	-0.03	<0.00	-434.39

[a] Refers to carbon dioxide equivalent, which includes the relative warming capacity (i.e., global warming potential) of each greenhouse gas.

[b] O&M activities minus displaced grid energy emissions

[c] Displaced energy calculations based on statewide electric grid emission factors assuming a 2019 resource mix (first year of complete operation). The effects of the Renewables Portfolio Standard beyond 2019 are factored into the lifetime GHG analysis.

CH_4 = methane

CO_2 = carbon dioxide

N_2O = nitrous oxide

As shown in Table 3-6, O&M activities would generate less than 0.2 metric ton of CO_2e per year. Further, the renewable energy generated by the project would offset about 434.5 metric tons CO_2e per year of grid-supplied electricity, resulting in an annual net GHG reduction of approximately 434.3 metric tons CO_2e. This would offset short-term construction emissions (53.6 metric tons) in less than 2 months. Because additional renewable resources would be integrated into the statewide electrical grid as a result of the Renewables Portfolio Standard (RPS),[1] the annual displaced emissions achieved by the project would decline as a function of time. Lifetime GHG reductions were quantified assuming a 40-year design life for the panels and linear integration of additional renewables into the statewide grid, up to 50% by 2030, pursuant to SB 350.

Table 3-7 presents the results of the analysis and indicates that lifetime operation of the project would reduce GHG emissions by approximately 12,266 metric tons CO_2e. Accordingly, implementation of the project would not exceed any of PCAPCD's GHG thresholds. Rather, the project would result in a GHG benefit that would facilitate attainment of local and statewide goals to reduce GHG emissions. This impact would be less than significant and no mitigation is required.

[1] SB X1-2 obligates investor-owned utilities, energy service providers, and Community Choice Aggregations to procure 33% of retail sales from eligible renewable sources by 2020. SB 350 extended the RPS to 50% of retail sales by 2030.

Table 3-7. Estimated Lifetime Greenhouse Gas Emissions from Project Operation (metric tons)

Source	CO_2	CH_4	N_2O	CO_2e[a]
Construction (see Table 3-5)	49.4	0.01	<0.01	50.0
O&M activities[b]	4.4	<0.01	<0.01	4.5
Total project emissions[c]	**57.4**	**0.01**	**<0.01**	**58.1**
Displaced grid energy[b,d]	-12,288.6	-0.73	-0.09	-12,333.3
Net emissions[e]	-12,346.01	-0.74	-0.09	-12,391.34

[a] Refers to carbon dioxide equivalent, which includes the relative warming capacity (i.e., global warming potential) of each greenhouse gas.
[b] Annual emissions over a 40-year project life.
[c] Construction plus O&M activity emissions
[d] Calculation accounts for increasing penetration of renewables into the statewide grid, up to 50% by 2030, pursuant to SB 350. Analysis does not account for decreased panel efficiency over time.
[e] Total project emissions minus displaced grid energy emissions
CH_4 = methane
CO_2 = carbon dioxide
N_2O = nitrous oxide

b) Conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases?

AB 32 and SB 32 establish statewide goals to reduce GHG emissions back to 1990 levels by 2020 and 40% below 1990 levels by 2030, respectively. The ARB adopted the AB 32 Scoping Plan as a framework for achieving AB 32 goals. The Scoping Plan outlines a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions. Many of these strategies have been extended as part of the *2017 Climate Change Scoping Plan Update* to achieve SB 32.

Both the AB 32 Scoping Plan and SB 32 update include implementation of the RPS as an individual measure. The RPS promotes multiple objectives, including diversifying the electricity supply. Increasing the RPS to 50% by 2030 is designed to accelerate the transformation of the electricity sector, including investment in the transmission infrastructure and system changes to allow integration of large quantities of intermittent wind and solar generation. The project would add renewable solar-generated energy to the electricity supply and actually result in net GHG emission reductions (see Tables 3-6 and 3-7). Therefore, the project would be consistent with the RPS-recommended action of the AB 32 Scoping Plan and SB 32 update. There are no other scoping plan measures or policies applicable to the proposed project. Accordingly, this impact would be less than significant and no mitigation is required.

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3.2.8 Hazards and Hazardous Materials

VIII. Hazards and Hazardous Materials	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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 accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

Setting

Regulatory Setting

State

EPA has granted the state primary oversight responsibility to administer and enforce hazardous waste management programs. State regulations require planning and management to ensure that hazardous materials are handled, stored, and disposed of properly to reduce risks to human health and the environment. Several aspects of state laws pertaining to hazardous materials and wastes are discussed below.

Worker Safety

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the work place. The California Division of Occupational Safety and Health (Cal-OSHA) and the federal Occupational Safety and Health Administration are the agencies responsible for assuring worker safety in the workplace.

Cal-OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices within the state. At sites known to be contaminated, a site safety plan must be prepared to protect workers. The site safety plan establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

Hazardous Materials Management

The Department of Toxic Substance Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous material waste. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills. These regulations also require hazardous materials users to prepare written plans, such as a hazardous materials business plan, that describe hazardous materials inventory information, storage and secondary containment facilities, emergency response and evacuation procedures, and employee hazardous materials training programs. Local agencies, including the Placer County Department of Public Health, Division of Environmental Health, also enforce state hazardous materials regulations.

Local

Roseville Certified Unified Program Agency

The City of Roseville Fire Department is the Certified Unified Program Agency (CUPA) for Roseville. In addition to responding to hazardous materials emergencies

or complaints, the CUPA is responsible for above- and underground storage tank inspections, enforcing hazardous materials business plans, conducting inspections, reviewing construction and remediation plans involving hazardous materials or wastes, and administering various permit applications.

Environmental Setting

The project site and nearby undeveloped areas consist primarily of grassland near urban land uses. The site is next to the Roseville Energy Park. The Roseville Fire Department operates eight fire stations that provide hazardous material management and other services. The project site is within Fire Protection District 9, served by Fire Station No. 9, 0.5 mile east of the project site at 2451 Hayden Parkway (City of Roseville 2013). The site is not located in a very high fire hazard severity zone (California Department of Forestry and Fire Protection 2008).

The closest public use airports are McClellan Airfield, located approximately 7.5 miles south of the project site, and Lincoln Regional Airport, located approximately 7.8 miles north of the project site. The closest private airport to the proposed project site is Van Dyke Strip Airport, located approximately 7.4 miles northwest. The closest school is Junction Elementary School, located approximately 1.3 miles southeast of the project site.

Impact Analysis

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

Construction, operation and, ultimately, removal of the proposed project would involve small quantities of commonly used hazardous materials, such as fuels, lubricants, and oils, to operate construction equipment and motor vehicles. Standard construction BMPs, including preparation and implementation of a SWPPP and a hazardous material spill prevention and countermeasure plan, would be implemented to reduce exposure to, or potential for, accidental spills involving these materials. No hazardous materials would be disposed of on the project site. Therefore, 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 accident conditions involving the release of hazardous materials into the environment?

Site workers, the public, and the environment could be inadvertently exposed to existing contaminants onsite during project construction. Small quantities of potentially toxic substances (such as petroleum and other chemicals used to operate and maintain construction equipment) would be used at the project site and transported to and from the area during construction. However, the handling and

disposal of these materials would be governed according to regulations enforced by the CUPA, Cal-OSHA, and DTSC.

In addition, the following plans and special provisions would be followed.

- Compliance with the City's Multi-Hazard Mitigation Plan (approved by the Federal Emergency Management Agency), which requires contractors to transport and store materials in approved containers along designated truck routes, maintain required clearances, and handle materials using fire department–approved protocols, as illustrated in Roseville Fire Code Ordinance 4594.
- Implementation of a hazardous material spill prevention and countermeasure plan to minimize the exposure of people and the environment to potentially hazardous materials. The plan is intended to ensure that transport, storage, and handling of hazardous materials required for construction is conducted in a manner consistent with relevant regulations and guidelines.
- Compliance with the City's Design and Construction Standards and the City's Stormwater Quality BMP Guidance Manual for Construction.

In addition, the City Fire Department would review construction plans and would respond to hazardous materials complaints or emergencies, if any, during construction. Because hazardous materials discovered or accidentally released during construction would be handled as required by federal, state, and local regulations, the impact would be less than significant and no mitigation is required.

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

There are no public or private K–12 schools within 0.25 mile of the project site. A proposed high school is planned for a site south of the project site, but the future high school site is more than 0.25 mile from the project site. It is unlikely that hazardous materials would be emitted or released within 0.25 mile of any school. Also, implementation of the standard BMPs by contractors would reduce the potential for a hazardous materials spill. There would be no impact.

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

The project site is not located on a known hazardous material site (State Water Resources Control Board 2017). Any hazardous materials encountered on the site would be handled and disposed of in compliance with state and local regulations that protect the public and the environment from exposure to such materials. There would be no impact.

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

The project site is not located within an airport land use plan area or within 2 miles of a public airport. There would be no impact.

f) Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?

The project site is not located within the vicinity of a private airstrip. There would be no impact.

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

Construction of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. If needed, traffic controls would be implemented during construction, although relatively minimal traffic restrictions are anticipated. This impact would be less than significant and no mitigation is required.

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The project site consists of undeveloped grassland. Residential development is located less than 0.5 mile from the project site to the east and south. The area is not within a state-designated very high fire hazard severity zone.

Project construction would involve the use of heavy equipment, welding, and other activities that have the potential to ignite fires. Solar panels are manufactured from fire-resistant materials, and other electrical equipment would be enclosed in fire-resistant material. All wiring would be in accordance with electrical codes, which require clear-area setbacks from utility poles. Malfunction of equipment that could cause a fire is extremely unlikely during project operations.

The Roseville Fire Department would provide fire protection, with the closest station approximately 0.5 mile east of the project site (Fire Station No. 9). In addition, the Roseville Fire Department has mutual and automatic aid agreements with the following fire departments: the California Department of Forestry and Fire Protection/Placer County Fire Department, the Sacramento Metropolitan Fire District, the South Placer Fire Protection District, and the Rocklin Fire Department.

The contractor would comply with Cal-OSHA standards for the storage and handling of fuels, flammable materials, and common construction-related hazardous materials and for fire prevention.

Perimeter roads and interior access roads would conform to Roseville Fire Department and state fire standards. In addition, the project would meet the minimum standards set forth by Public Resources Code Section 4290, Title 14, for fire protection and emergency water standards.

As a result, impacts associated with wildland fires would be less than significant, and no mitigation is required.

Mitigation Measures

The proposed project would result in either no or less-than-significant impacts related to hazards and hazardous waste. No mitigation is required.

References

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3.2.9 Hydrology and Water Quality

IX. Hydrology and Water Quality	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	☐	☐	☒	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	☐	☐	☒	☐
e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f. Otherwise substantially degrade water quality?	☐	☐	☒	☐
g. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h. Place within a 100-year flood hazard area structures that would impede or redirect floodflows?	☐	☐	☐	☒
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒

IX. Hydrology and Water Quality	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
j. Contribute to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Setting

The climate in the project vicinity is characterized by hot, dry summers and cool, moist winters. National Weather Service cooperative weather station number 047516 (Rocklin) is the closest weather station to the project site, approximately 8 miles east-northeast at an elevation of approximately 240 feet above mean sea level. Average annual precipitation at this weather station is 22.8 inches, with most precipitation falling as rain from November through March (Western Regional Climate Center 2017).

The project site is located in the Upper Coon–Upper Auburn hydrologic unit (HUC 18020127) (U.S. Geological Survey 2017). Runoff from the site flows northerly as sheetflow and in swales to Pleasant Grove Creek, located as close as 600 feet north of the site. Pleasant Grove Creek flows into Pleasant Grove Canal, a tributary of the Sacramento River via Cross Canal. The informally named and poorly defined channel of Coyote Creek, which flows north into Pleasant Grove Creek, passes approximately 550 feet east of the site.

Surface runoff rates of the soils at the project site range from slow to very high, depending on the soil map unit. The erosion hazard for sheet and rill erosion is slight or medium, depending on the soil map unit. The seasonal high water table is more than 6 feet deep in most areas. However, in the northern part of the site, a shallow perched water table may form over the subsurface hardpan such that the water table can be as shallow as 18 inches during parts of the rainy season (Rogers 1980).

The Federal Emergency Management Agency Flood Insurance Rate Map (Federal Emergency Management Agency 1988) shows that the site is in Zone X, indicating that the project site is outside the 500-year floodplain of Pleasant Grove Creek.

Coyote Creek does not appear on the State Water Resources Control Board's 2010 California 303(d) List of Water Quality Limited Segments. Pleasant Grove Creek appears on the State Water Resources Control Board's 2010 California 303(d) List of Water Quality Limited Segments for oxygen, dissolved; pyrethroids; and sediment toxicity (the latter only upstream of Fiddyment Road, which is upstream of the site) (State Water Resources Control Board 2010).

Because of the project site's elevation above sea level and because no large water body exists at the site, there is no chance for a tsunami or seiche to occur at the site.

The hazard for a mudflow (i.e., a debris flow) at the project site is likely low, based on the site's shallow slopes and lack of significant concave areas.

Impact Analysis

a) Violate any water quality standards or waste discharge requirements?

The SWPPP that would be prepared for the project would specify erosion control, sediment control, non-stormwater management, and housekeeping BMPs that, if properly selected and implemented, would prevent substantial sediment and other pollutant movement from the site, such that the project would not violate any water quality standards. The BMPs, provided that they are properly implemented and maintained, are expected to be effective in preventing violations of water quality standards and waste discharge requirements because of the low erosion hazard at the site. Potential impacts related to water quality standards and waste discharge requirements would be less than significant. No mitigation is required.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

The project would not use groundwater. Because most of the site would remain as pervious surfaces, no significant reduction in groundwater recharge is expected. The impact related to depletion of groundwater supplies or interference with groundwater recharge would be less than significant. 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, in a manner that would result in substantial erosion or siltation onsite or offsite?

The project would involve clearing and grubbing, excavation and filling, soil stockpiling, and soil compaction, and undulating slopes would be made more planar. However, these activities would not alter the overall drainage pattern of the site and the point that runoff presently leaves the site would not change as a result of the project.

Site grading would expose soils to accelerated erosion by runoff if soils are not properly protected. However, as part of the proposed project, erosion and sediment control BMPs and post-construction BMPs to avoid hydro-modification effects would be implemented. The SWPPP would include such practices as seeding, mulching, installation of erosion control blankets, and installing sediment barriers such as fiber rolls and silt fences, as well as the stormwater management measures that are included in the project design. Therefore, the project would not result in substantial

erosion or siltation onsite or offsite. The impact would be less than significant, and no mitigation is required.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?

The project may cause a temporary increase in runoff rates and amounts during and shortly after construction, but runoff management measures required by the state Stormwater General Permit for Construction and Land Disturbance Activities and contained in the SWPPP would limit such increases to an acceptable level.

Because the project would not involve construction of substantial areas of impervious surfaces, it would not cause an increase in peak discharge in Pleasant Grove Creek, because peak discharges from Coyote Creek occur about 2 hours before the peak flow from Pleasant Grove Creek reaches the Coyote Creek confluence.

The project would not substantially alter the existing natural drainage pattern of the site or area. Because of the small area that the project would disturb relative to the watershed in which it is located, and because the project would involve construction of only a slight increase in impervious surface, any increases in the rate or amount of surface runoff would not be sufficient to result in flooding onsite or offsite. Therefore, the impact related to flooding onsite or offsite would be less than significant. No mitigation is required.

e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. See responses to checklist questions (a), (c), and (d). The impact would be less than significant and no mitigation is required.

f) Otherwise substantially degrade water quality?

The proposed project has a low potential to affect water quality in Pleasant Grove Creek and Coyote Creek given the distance of these waterways from the project site (Pleasant Grove Creek is approximately 600 feet north of the site and Coyote Creek, which flows north into Pleasant Grove Creek, passes approximately 550 feet east of the site).

Potential water quality affects associated with seasonal wetlands on and adjacent to the project site (Areas A, B, and C in Figure 2) would be avoided through the

implementation of water quality BMPs, SWPPP measures, and Mitigation Measure BIO-1: Implement Wetland Avoidance Measures (described in Section 3.2.4, *Biological Resources*).

As discussed previously in this section, Roseville Electric and its contractor would incorporate erosion and sediment control BMPs and post-construction BMPs into the proposed project to avoid substantial degradation of water quality. The SWPPP would include such practices as seeding, mulching, installation of erosion control blankets, and installing sediment barriers such as fiber rolls and silt fences, as well as the stormwater management measures that are included in the project design. Therefore, the impact related to substantial degradation of water quality would be less than significant. No mitigation is required.

g) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No housing is proposed as part of the proposed project; therefore, there would be no impact.

h) Place within a 100-year flood hazard area structures that would impede or redirect floodflows?

As described above, the project site is in Zone X, indicating that the project site is outside the 500-year floodplain of Pleasant Grove Creek. Therefore, the proposed project would not involve the placement of any structures within a 100-year flood hazard area. There would be no impact.

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving flooding because the site is not near any potential flooding areas, including levees and dam. Therefore, there would be no impact.

j) Contribute to inundation by seiche, tsunami, or mudflow?

No large bodies of water are located in the project vicinity; therefore, there is no risk of inundation by seiche. The project area is located far from the ocean; therefore, there is no inundation risk related to tsunami. Therefore, the proposed project would have no impact related to seiche, tsunami, or mudflow.

Mitigation Measures

The proposed project would not result in significant impacts related to hydrology and water quality; therefore, no mitigation measures are required.

References

Federal Emergency Management Agency. 1998. *Flood Insurance Rate Map, Placer County, California, and Incorporated Areas*. Map Number 06061C400 F. National Flood Insurance Program.

Rogers, J.H. 1980. *Soil Survey of Placer County, California, Western Part*. USDA Soil Conservation Service in cooperation with University of California Agricultural Experiment Station.

State Water Resources Control Board. 2010. *2010 California 303(d) List of Water Quality Limited Segments*. Available: http://www.waterboards.ca.gov/water_issues/programs/tmdl/2010state_ir_reports/category5_report.shtml. Accessed: February 24, 2017.

U.S. Geological Survey. 2017. *Science in Your Watershed. USGS Water Resources Links for: 18020127 – Upper Coon-Upper Auburn*. Available: http://water.usgs.gov/lookup/getwatershed?18020127/www/cgi-bin/lookup/getwatershed. Accessed: February 24, 2017.

Western Regional Climate Center, Desert Research Institute. 2017. *Rocklin, California (047516)—Period of Record Monthly Climate Summary*. Available: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7516. Accessed February 24, 2017.

3.2.10 Land Use and Planning

X. Land Use and Planning	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Setting

The project site is located on undeveloped land adjacent to the *West Roseville Specific Plan* and *Creekview Specific Plan* areas in northwest Roseville. The project site is 0.15 mile south of Pleasant Grove Creek and immediately south of the planned westward extension of Blue Oaks Boulevard. It is bordered on the west and east by undeveloped parcels and on the south by the Roseville Energy Park. South of the Roseville Energy Park is the Pleasant Grove Wastewater Treatment Plant.

The project site contains ruderal grassland and was previously used for agricultural purposes, including pasture and dry farming.

City of Roseville General Plan 2035

The *City of Roseville General Plan 2035* guides the general distribution and intensity of land uses within the city. The General Plan Land Use Element includes the following relevant goals and policies.

Growth Management Goal 2. The City shall encourage a pattern of development that promotes the efficient and timely provision of urban infrastructure and services, and preserves valuable natural and environmental resources.

Growth Management Goal 3. Growth shall mitigate its impacts through consistency with the General Plan goals and polices and shall provide a positive benefit to the community.

Growth Management Goal 7. Potential population growth in Roseville must be based on the long-term carrying capacities and limits of the roadway system, sewer and water treatment

facilities, and electrical utility service, as defined in the Circulation Element and the Public Facilities Element.

Growth Management Policy 4. Growth shall be managed to ensure that adequate public facilities and services, as defined in the Public Facilities Element, are planned and provided and the public health, safety, and welfare is protected.

The General Plan also specifies land use designations for all properties within the incorporated city. The project site is designated P/QP (Public/Quasi-Public). The P/QP land use designation is used to designate areas for education, religious assembly, governmental offices, municipal corporation yards, and water treatment plants. Primary uses include municipal, government, or public facilities (City of Roseville 2016).

Lands immediately surrounding the project site also carry designations of P/QP.

City of Roseville Zoning Ordinance

The City of Roseville Zoning Ordinance codifies the land uses allowed within the incorporated city limits. The zoning ordinance defines and maps a series of zoning districts, establishes regulatory standards for development and resource protection, and identifies the specific uses permitted within each of those districts (City of Roseville 1996b). The project site is zoned Public/Quasi-Public by the zoning ordinance (City of Roseville 1996a). Section 19.16.010 of the zoning ordinance defines the purpose of the Public/Quasi-Public zoning district as follows.

Public/Quasi-Public District. The public/quasi-public district is applied to land intended for education, religious assembly, governmental offices, municipal corporation yards, water treatment plants, power generating facilities (including privately owned facilities), and other publicly-owned facilities.

Impact Analysis

a) Would the project physically divide an established community?

The project site is located at the edge of a community under development, adjacent to public utility facilities and undeveloped grazing land. The project constitutes use planned in the *City of Roseville General Plan 2035* and would not physically divide an established community. There would be no impact.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The project is a use planned in the *City of Roseville General Plan 2035* and is consistent with the goals and policies of the general plan. The project would comply

with the development standards and requirements specified by the City of Roseville Zoning Ordinance. The project would not conflict with any applicable land use plans, policies, or regulations. There would be no impact.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No habitat conservation plan or natural community conservation plan has been adopted for the project vicinity. Therefore, there would be no impact.

Mitigation Measures

The proposed project would not result in significant impacts related to land use. Therefore, no mitigation measures are required.

References

City of Roseville. 1996a. *City of Roseville Zoning Map*. Adopted July 26, 1996. Amended through August 2014. Available: http://www.roseville.ca.us/civicax/filebank/blobdload.aspx?blobid=8828. Accessed: February 20, 2017.

City of Roseville. 1996b. *City of Roseville Zoning Ordinance*. Adopted July 26, 1996. Amended through April 6, 2016. Available: http://www.roseville.ca.us/civicax/filebank/blobdload.aspx?blobid=2761. Accessed: February 20, 2017.

City of Roseville. 2016. *City of General Plan 2035*. Adopted June 15, 2016. Amended August 17, 2016. Available: http://www.roseville.ca.us/gov/development_services/_planning/general_plan_n_development_guidelines.asp. Accessed: February 20, 2017.

3.2.11 Mineral Resources

XI. Mineral Resources	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☐	☒

Setting

The California Geological Survey identifies areas that contain or that could contain significant mineral resources so as to provide context for local agency land use decisions and to protect availability of known mineral resources. Classifications ranging from MRZ-1 to MRZ-4 are based on knowledge of a resource's presence and the quality of the resource.

The project site is classified as MRZ-4, which is defined as "areas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources" (California Department of Conservation, Division of Mines and Geology 1995). No mineral extraction operations exist in or adjacent to the project site.

The *City of Roseville General Plan 2035* does not designate territory within the city limits for resource extraction.

Impact Analysis

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?

Because no known mineral occurrences are present within the project site, the proposed project would not result in the loss of any known mineral resources that are of value to the region and residents of the state. There would be no impact.

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?

The City's general plan does not designate lands for mineral resource recovery, and no known mineral occurrences are present within the project site. Therefore, there would be no impact.

Mitigation Measures

The proposed project would not result in significant impacts related to mineral resources. Therefore, no mitigation measures are required.

References

California Department of Conservation, Division of Mines and Geology. 1995. *Open File Report 95-10, Mineral Lands Classification of Placer County, California*. Page 18.

3.2.12 Noise

XII. Noise	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	☐	☐	☒	☐
b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e. Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f. Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Setting

Noise Background

Noise is commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. The sound pressure level, expressed along the decibel (dB) scale, is the most common descriptor used to characterize the loudness of ambient (existing) noise. However, because the dB scale does not accurately describe how sound intensity is perceived by human hearing, noise measurements are weighted more heavily for frequencies to which humans are sensitive. This process is called *A-weighting*, written as dBA, and referred to as *A-weighted decibels*. In general, human sound perception is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change of 3 dB is barely noticeable, a change of 5 dB is clearly

noticeable, and a change of 10 dB is perceived as doubling or halving the sound level.

Sound attenuates based on geometry, or at a rate of 6 dB per doubling of distance for a point source (e.g., stationary compressor or construction equipment) and 3 dB per doubling of distance for a line source (e.g., traffic on a freeway) (California Department of Transportation 2013a). Atmospheric conditions, including wind, temperature gradients, and humidity, can change how sound propagates over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface, such as grass, attenuates at a greater rate than sound that travels over a hard surface, such as pavement. The increased attenuation is typically in the range of 1 to 2 dB per doubling of distance. Barriers such as buildings and topography that block the line of sight between a source and receiver also increase the attenuation of sound over distance.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), percentile-exceeded sound levels (such as L10, L20), the day-night sound level (L_{dn}), and the community noise equivalent level (CNEL). L_{dn} and CNEL values differ by less than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such in this assessment.

Vibration Background

Operation of heavy construction equipment, particularly the types used for pile driving and pavement breaking, create seismic waves that radiate along the surface of the earth and downward into the earth. These surface waves can be felt as ground vibration. Vibration from operation of this equipment can result in effects ranging from annoyance of people to damage to structures. Varying geology and distance result in different vibration levels with different frequencies and displacements. In all cases, vibration amplitudes decrease with increasing distance.

Perceptible groundborne vibration is generally limited to areas within a few hundred feet of construction or vibration-generating (e.g., mining) activities. As seismic waves travel outward from a vibration source, they excite the particles of rock and soil through which they pass and cause the particles to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second [in/sec]) at which these particles move is the commonly accepted descriptor of the vibration amplitude, referred to as the peak particle velocity (PPV). Table 3-8 summarizes typical vibration levels generated by construction equipment at various distances.

Table 3-8. Vibration Source Levels for Demolition and Construction Equipment

Equipment	PPV at 25 feet	PPV at 50 feet	PPV at 75 feet	PPV at 100 feet	PPV at 500 feet
Pile driver (impact)	1.518	0.537	0.292	0.190	0.0170
Pile driver (vibratory)	0.734	0.260	0.1413	0.092	0.0082
Hoe ram	0.089	0.0315	0.0171	0.0111	0.0012
Large bulldozer	0.089	0.0315	0.0171	0.0111	0.0012
Loaded trucks	0.076	0.0269	0.0146	0.0095	0.0010
Jackhammer	0.035	0.0124	0.0067	0.0044	0.0005
Vibratory roller	0.003	0.0011	0.0006	0.0004	0.0027

Sources: California Department of Transportation 2013b and Federal Transit Administration 2006.
PPV = peak particle velocity

Vibration amplitude attenuates over distance and is a complex function of how energy is imparted into the ground and the soil conditions through which the vibration is traveling. The following equation can be used to estimate the vibration level at a given distance for typical soil conditions (Federal Transit Administration 2006). PPV_{ref} is the reference PPV from Table 3-8.

$$PPV = PPV_{ref} x\ (25/Distance)^{1.5}$$

The California Department of Transportation (Caltrans) has developed vibration guidelines for damage and annoyance potential from transient and continuous vibration usually associated with construction activity. Vibration from construction equipment usually falls under the category of continuous/frequent intermittent sources. Tables 3-9 and 3-10 summarize these Caltrans guidelines for vibration damage and annoyance.

Table 3-9. Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (inches/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation 2013b.
Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory-compaction equipment.
PPV = peak particle velocity

Table 3-10. Guideline Vibration Annoyance Potential Criteria

Structure and Condition	Maximum PPV (inches/second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: California Department of Transportation 2013b.
PPV = peak particle velocity

Existing Setting

The project vicinity is relatively rural and undeveloped. Primary contributors to the noise environment include stationary equipment (including transformers) at the Roseville Energy Park and the Pleasant Grove Wastewater Treatment Facility, as well as traffic on Philip Road.

According to the noise analysis for the *Creekview Specific Plan* (City of Roseville 2010), the 50 dB L_{eq} noise contour from the Roseville Energy Park extends out approximately 1,470 feet from the center of the facility. Based on a standard attenuation rate of 6 dB per doubling of distance, noise at a distance of 1,000 feet (the approximate distance from the center of the Roseville Energy Park to the nearest residence) would be approximately 53 dBA L_{eq}.

The closest offsite noise sensitive receptor is a single-family home located approximately 450 feet northwest of the project boundary. This building is both a residence and the Archie & Willa O'Brien's Boarding & Grooming facility for dogs. The Lennar at Carrington residential development is located southwest of Westbrook Boulevard, about 1,000 feet west of the project site. This development is under construction and includes some completed homes.

Applicable Noise Standards

There are no federal or state noise standards directly applicable to the project. The *City of Roseville General Plan 2035* establishes hourly noise level performance criteria for nontransportation noise sources, or stationary noise sources. These hourly criteria are shown in Table 3-11. A similar table showing the same daytime and nighttime thresholds is included in the City's noise ordinance (Municipal Code Section 9.24.100, *Sound Limits for Sensitive Receptors*).

Table 3-11. Hourly Noise Level Performance Criteria for Nontransportation Noise Sources[a, b]

Noise Level Descriptor	Daytime (7 a.m.–10 p.m.)	Nighttime (10 p.m.–7 a.m.)
Hourly average (L_{eq})	50 dB	45 dB
Maximum level (L_{max})	70 dB	65 dB

Source: Table IX.3 of the City of Roseville General Plan Noise Element, 2010:

[a] For municipal power plants consisting primarily of broadband, steady state noise sources, the hourly (L_{eq}) noise standard may be increased up to 10 dB(A), but may not exceed 55 dB(A) hourly L_{eq} dB. Each of the specified noise levels should be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Such noises are generally considered by residents to be particularly annoying and are a primary source of noise complaints. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

[b] No standards have been included for interior noise levels. Standard construction practices should, with exterior noise levels identified, result in acceptable interior noise levels.

dB = decibel
L_{eq} = equivalent sound level
Lmax = maximum sound level

Although the aforementioned standards apply to most stationary noise sources in the City, the noise ordinance provides an exemption for construction noise. Section 9.24.030, *Exemptions*, of the City Municipal Code states that 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 is exempt from the local noise restrictions provided that all construction equipment is fitted with factory installed muffling devices and that all construction equipment is maintained in good working order.

Impact Analysis

a) Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?

Construction

Noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Table 3-12 summarizes noise levels produced by construction equipment that is expected to be used for project construction. Individual construction equipment is expected to generate noise levels ranging from 74 to 101 dB L_{max} and from 72 to 94 L_{eq} at a distance of 50 feet.

Table 3-12. Construction Equipment Noise (dBA)

Equipment	Maximum Noise Level at 50 feet (L_{max})	Acoustical Use Factor	Noise Level at 50 feet (L_{eq})
Backhoe/loader	79	40%	75
Impact pile driver	101	20%	94
Grader	85	40%	81
Grade-all	81	40%	79
Compactor	83	20%	76
Bulldozer	82	40%	78
Loader	79	40%	75
Water truck	74	40%	72

Source: Federal Highway Administration 2006.
dBA = A-weighted decibel
L_{eq} = equivalent sound level
Lmax = maximum sound level

Construction would entail five phases over an approximately 5-month period from June through November 2018. Refer to Table 3-13 for the tentative construction phasing schedule. Refer to Table 3-14 for the list of construction equipment proposed for use during each phase of project construction.

Table 3-13. Tentative Construction Schedule

Project Phase	Start Date	End Date
Phase 1: Mobilization, Site Layout, and Receipt of Construction Materials	06/29/2018	07/12/2018
Phase 2: Civil Site Preparation, Road Installation, and Receipt of Construction Materials	07/13/2018	08/02/2018
Phase 3: Pile Installation	08/03/2018	08/23/2018
Phase 4: Racking and Module Installation and Electrical Work	08/24/2018	10/18/2018
Phase 5: Punch List Items, Commissioning Activities, and Demobilization Activities	10/19/2018	11/22/2018

Table 3-14. Construction Equipment Proposed for Use by Phase

Project Phase	Equipment Type	Quantity
Phase 1	Grade-all	1
Phase 2	Backhoe with 24-inch bucket	1
	Compactor	1
	Bulldozer	1
	Grader	1
	Skip loader	1
	Water truck	1
Phase 3	Pile driver	1
Phase 4	Grade-all	1
Phase 5	None	0

Estimated construction noise levels were modeled for the nearest noise-sensitive land use to Phase 2 and Phase 3 project construction equipment. Pile driving during Phase 3 would be the loudest construction activity. For Phase 3, construction noise from a pile driver was estimated at a distance of 450 feet (the distance from the project site to the nearest sensitive receptor). For Phase 2, a reasonable worst-case cumulative construction noise level at this residence was modeled based on the conservative assumption that the three loudest pieces of equipment proposed for use during this phase would operate concurrently. Phase 2 of the proposed project is the only phase that would involve the use of more than one piece of construction equipment. For this phase, the concurrent use of a grader, a bulldozer, and a backhoe was modeled to estimate the reasonable worst-case noise levels associated with Phase 2 of project construction.

Note that to calculate an average noise level from a maximum (L_{max}) noise level, or to calculate a combined average noise level for multiple pieces of construction equipment operating concurrently, utilization factors must be applied. The utilization factor is the percentage of time each piece of construction equipment is typically operated at full power over the specified time period and is used to estimate L_{eq}

values from L_{max} values. For example, the L_{eq} value for a piece of equipment that operates at full power over 50% of the time is 3 dB less than the L_{max} value (Federal Highway Administration 2006).

As shown in Table 3-15, Phase 2 construction involving the concurrent use of a grader, a bulldozer, and a backhoe could result in average hourly noise levels of 66 dBA L_{eq} at the nearest residential receptor. Construction noise from a pile driver alone during Phase 3 of construction could generate a noise level of 94 dBA L_{eq} (or 101 dBA L_{max}) at a distance of 50 feet; this would result in an approximate hourly average noise level of 75 dBA L_{eq} at the nearest residential receptor (450 feet away).

Although it is possible that construction activity could generate this level of noise, and although construction activities could be as close as 450 feet from the nearest residence, construction activities would not be occurring near the northwestern border of the project site for the entire duration of the project and construction noise would likely be much less than this most of the time.

Table 3-15. Phase 2 Combined Construction Equipment Noise (dBA)

Source Data:	Maximum Sound Level (dBA)	Utilization Factor	L_{eq} Sound Level (dBA)
Construction Phase: Phase 2			
Source 1: Scraper - Sound level (dBA) at 50 feet =	84	40%	80.0
Source 2: Grader - Sound level (dBA) at 50 feet =	85	40%	81.0
Source 3: Bulldozer - Sound level (dBA) at 50 feet =	82	40%	78.0
Calculated Data:			
All Sources Combined - L_{max} sound level (dBA) at 50 feet =			89
All Sources Combined - L_{eq} sound level (dBA) at 50 feet =			85

Distance Between Source and Receiver (feet)	Geometric Attenuation (dB)[a]	Calculated L_{max} Sound Level (dBA)[b]	Calculated L_{eq} Sound Level (dBA)[b]
50	0	89	85
100	-6	83	79
200	-12	77	73
250	-14	75	71
300	-16	73	69
400	-18	71	67
450	-19	70	66
600	-22	67	63
650	-22	66	62
700	-23	66	62
800	-24	65	61
900	-25	64	60
1000	-26	63	59
1200	-28	61	57
1400	-29	60	56
1600	-30	59	55
1800	-31	57	54
2000	-32	57	53
2500	-34	55	51
3000	-36	53	49

[a] Geometric attenuation based on 6 dB per doubling of distance.

[b] This calculation does not include the effects, if any, of local shielding from walls, topography, or other barriers that may reduce sound levels further.

dB = decibel
dBA = A-weighted decibel
L_{eq} = equivalent sound level
L_{max} = maximum sound level

Construction activities are exempt from the City noise ordinance as long as they occur between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 8:00 p.m. Saturday and Sunday. All construction activities for the project would occur during these exempted times. Moreover, as required by the noise ordinance, all construction equipment would be fitted with factory-installed muffling devices and would be maintained in good working order. Therefore, although construction equipment could temporarily generate noise in excess of the ambient noise levels in the project vicinity, it would not be expected to exceed City noise ordinance standards. Construction noise impacts on nearby noise-sensitive land uses would, therefore, be less than significant. No mitigation is required.

Operations

PV solar plants do not generally generate much noise. Sources of noise from PV solar plants can include the operation of the tracking motors that are used to rotate the panels to follow the sun and operation of the inverter/transformer buildings. The PV panels for this project would not use tracking motors.

The project includes a transformer of up to 1,600 kilovolt-ampere (kVA) in the southeastern portion of the project site. This transformer would be located more than 1,100 feet away from the nearest residence. According to the manufacturer's specifications, the proposed transformer would have a National Electrical Manufacturers Associated (NEMA) rating of up to 65 dB. The sound pressure level produced by the transformer was estimated using this NEMA rating and methodology specified in Hoover & Keith 2000. A transformer with this NEMA rating could produce a noise level of approximately 58 dBA L_{max} at a distance of 50 feet. Assuming the transformer is operating 100% of the time, this L_{max} noise level would be the same as the average L_{eq} noise level for the transformer. At a distance of 1,100 feet from the transformer (at the nearest residence), this noise level would be reduced to approximately 31 dBA L_{eq} based on attenuation from distance alone (6 dB per doubling of distance). This noise level is below the City's daytime noise standard of 50 dBA L_{eq}, and noise from this transformer would not be expected to be audible above the ambient sound level at nearby noise-sensitive land uses.

O&M would include panel washing up to one time per year. Panel washing would occur over a single day and would require approximately 2,000 gallons of water, supplied by a 500-gallon water tank, and requiring four round-trip truck trips to deliver the water to the project site. The water would likely be pumped through hoses to wash the panels. The sound level potentially produced by this operation is not known; however, sound data from a car wash would be expected to be similar. A typical car wash produces a sound level of about 67 dBA at 50 feet (Medlin & Associates 2002).

At the closest residence to the proposed project site—about 530 feet from the nearest proposed panel location on the project site (closest place where panel

washing could occur)—noise from panel washing would reduce to about 47 dBA based on distance alone. This noise level is below the City's daytime noise standard of 50 dBA L_{eq}. Further, although the closest panel to the offsite residence is about 530 feet away, most panels are farther than this from the residence. Consequently, hourly average noise would be expected to be less than this level. Finally, washing would be a short-term and infrequent maintenance activity, occurring once per year or less.

In addition to the trips for annual panel washing, there would be up to four O&M trips planned to the project site per year by a single truck. This would result in a negligible increase in traffic noise in the project area. Impacts related to increased traffic noise from O&M trips would be less than significant.

Because operational noise associated with the proposed project is not expected to exceed City standards, impacts related to the generation of noise in excess of standards from project operations would be less than significant. No mitigation is required.

b) Expose persons to or generate excessive groundborne vibration or groundborne noise levels?

Typical outdoor sources of perceptible groundborne vibration and noise are construction equipment, steel-wheeled trains, and heavy vehicles going over bumps. If the roadways in use are smooth, the groundborne vibration and noise from traffic is rarely perceptible.

Project operations, including the use of the proposed 1600 kVA transformer, are not expected to generate perceptible vibration at sensitive land uses located near the project site (the closest residence is located approximately 450 feet from the nearest proposed PV panel and more than 1,100 feet from the transformer).

The operation of heavy construction equipment can generate localized groundborne vibration at buildings adjacent to the construction site, especially during the operation of high-impact equipment, such as pile drivers. Vibration from non-impact construction activity and truck traffic is typically below the threshold of residential annoyance when the activity is more than about 50 feet from the noise-sensitive land uses (Federal Transit Administration 2006).

The nearest use that could be considered vibration sensitive (the residential use on Canmore Road) is approximately 450 feet from the project site. Project construction is expected to involve the use of pile drivers, as well as other earth-moving equipment (e.g., a bulldozer).

At a distance of 450 feet, vibration from large non-impact construction equipment (such as a large bulldozer) could generate vibration levels less than approximately 0.001 PPV in/sec, which is well below the damage threshold for older residential

structures of 0.3 PPV in/sec and the distinctly perceptible threshold of 0.04 PPV in/sec for continuous/frequent intermittent sources (Tables 3-9 and 3-10).

As described above, impact equipment, such as a pile driver, has a greater potential to generate groundborne vibration than other construction equipment. A pile driver could generate vibration levels of approximately 0.019 PPV in/sec at the nearest residence (450 feet away). This is also below the damage threshold for older residential structures of 0.3 PPV in/sec and the distinctly perceptible threshold of 0.04 PPV in/sec (Tables 3-9 and 3-10).

Therefore, vibration would not be expected to exceed the applicable Caltrans damage or annoyance thresholds at the nearest sensitive land uses. Impacts related to vibration annoyance and damage would be less than significant, and no mitigation is required.

c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The only operational noise source associated with the proposed project that could result in a permanent increase in noise is the transformer located in the southeastern portion of the project site. As discussed in checklist item a), the proposed project includes a 1,600 kVA transformer located in the northeastern portion of the project site. This transformer would be located more than 1,100 feet away from the nearest residence. According to the manufacturer's specifications, the proposed transformer has a NEMA rating of 65 dB. A transformer with this NEMA rating could produce a noise level of approximately 58 dBA L_{max} at a distance of 50 feet (Hoover and Keith 2000). Assuming the transformer is operating 100% of the time, this L_{max} noise level would be the same as the average L_{eq} noise level for the transformer. At a distance of 1,100 feet from the transformer (at the nearest residence), this noise level would be reduced to approximately 31 dBA L_{eq} based on attenuation from distance alone. This noise level is below the City's daytime noise standard of 50 dBA L_{eq}, and noise from this transformer would not be expected to be audible above the ambient sound level at nearby noise-sensitive land uses. Therefore, a substantial permanent increase in ambient noise levels would not result from proposed project operation. This impact would be less than significant and no mitigation is required.

d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

As discussed in checklist item a), panel washing could generate temporary or periodic increases in ambient noise. However, as described previously, noise from this activity would be below the applicable City noise limits. Operations associated with the proposed project, including panel washing, would, therefore, not be expected to result in a substantial temporary or periodic increase in ambient noise.

Impacts related to a substantial temporary or periodic increase in noise from operational sources would be less than significant.

As also discussed in checklist item a), noise from construction activities is exempt from the noise ordinance as long as construction occurs between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 8:00 p.m. Saturday and Sunday. All construction activities for the proposed project would occur during these exempted times. Moreover, all construction equipment would be fitted with factory-installed muffling devices and would be maintained in good working order.

Modeled worst-case noise levels were estimated to be in the range of 66–75 dBA L_{eq} at the nearest residential receptor. However, construction activities would be required to comply with City construction noise requirements and hours of operation. Because construction for the proposed project would comply with the applicable local regulations, temporary increases in noise levels from construction would not be considered substantial. Impacts related to a substantial temporary or periodic increase in noise from project construction would be less than significant. No mitigation is required.

e) Be 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 expose people residing or working in the project area to excessive noise levels?

The nearest public airport to the project site is the McClellan Airfield, which is approximately 7.5 miles south of the project site. According to the Noise Contour figure included in the Comprehensive Land Use Plan for the McClellan Airfield, the 60 dB CNEL airport noise contour is located more than 4 miles from the project site. Thus, noise levels from McClellan Airfield activities at the project site would be much lower than 60 dB CNEL. Sacramento International Airport is located approximately 12.1 miles southwest of the project site; no aircraft-related noise impacts would occur at this distance. Therefore, there would be no impact related to noise from public use airports.

f) Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?

There are no private airstrips in the vicinity of the project site. The closest private airstrip to the project area is the Van Dyke Strip located more than 7.3 miles north of the project site. Therefore, there would be no impact related to noise from private airstrips.

Mitigation Measures

The proposed project would not have a significant impact on noise levels. Therefore, no mitigation is required.

References Cited

California Department of Transportation. 2013a. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September. Available: http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013A.pdf.

California Department of Transportation. 2013b. *Transportation and Construction Vibration Guidance Manual*. September. Available: http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13 _FINAL.pdf.

City of Roseville. 2010. *Creekview Specific Plan Draft EIR*. December.

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Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. FTA-VA-90-1003-06. Office of Planning and Environment. May. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf.

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3.2.13 Population and Housing

XIII. Population and Housing	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☒	☐
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Setting

The project site is vacant ruderal grassland. The *City of Roseville General Plan 2035* designates the site for public or quasi-public uses, including electricity generation. No new homes are proposed for the project site.

Impact Analysis

a) Would the project induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

The proposed project would be located on land designated for public or quasi-public use. The project is intended to generate electricity for community use. Employment-generating activities, such as construction of the generation facility, would bring some workers into the area, but these activities are not anticipated to directly result in substantial population growth. Because the facility would be unmanned and visited only occasionally for O&M activities, no population growth would be expected to result from project operation. The project would not indirectly induce population growth by extending roads or infrastructure into previously undeveloped areas. The project would provide electrical generation capacity for Roseville residents. This would be a less-than-significant impact. No mitigation is required.

b) Would the project displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?

There are no residences on the project site. The proposed project would not displace housing. Therefore, there would be no impact.

c) Would the project displace a substantial number of people, necessitating the construction of replacement housing elsewhere?

There are no residences currently on the project site. The proposed project would not displace people. Therefore, there would be no impact.

Mitigation Measures

The proposed project would not have a significant impact on population and housing. Therefore, no mitigation is required.

3.2.14 Public Services

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

Setting

Fire Protection

The Roseville Fire Department operates eight fire stations that provide fire protection, suppression, emergency medical services, and hazardous material management within the city of Roseville, including the project site. The project site is within Fire Protection District 9, served by Fire Station No. 9, 0.5 mile east of the project site at 2451 Hayden Parkway (City of Roseville 2013).

Police Protection

The Roseville Police Department, headquartered approximately 5 miles from the project site at 1051 Junction Boulevard, provides police protection services to Roseville.

Schools

The nearest elementary and middle schools are Junction Elementary School and Chilton Middle School, approximately 1.3 miles southeast and 1.2 miles south of the project site, respectively. The nearest high school is Woodcreek High School, approximately 3.3 miles southeast. A new high school is proposed approximately 0.6

mile southeast of the project site across the future High School Road, as described in the *West Roseville Specific Plan*.

Parks

The nearest existing park to the project site is Norm Fratis Park, approximately 0.7 mile southeast of the project site. Additional parks are proposed as part of the *West Roseville Specific Plan* and the *Creekview Specific Plan*. A regional sports park is planned immediately east of the project site, and a citywide park is proposed south of the regional sports park site. Additional parks are planned or under development in the Westpark area southwest of the project site.

Impact Analysis

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

Fire protection?

The proposed project would be constructed in compliance with City codes and regulations, which require adequate infrastructure and water pressure for fire protection purposes**.** The nearest fire station to the project site is 0.5 mile east of the site's eastern boundary and is equipped to serve the proposed project. There would be no impact.

Police protection?

Because the proposed project would not introduce new residents to the area, it would not result in a need for new or physically altered police facilities in order to maintain adequate service levels. There would be no impact.

Schools?

The proposed project consists of a community solar generation facility and would not introduce additional residents to the area. Because the proposed project would not increase the demand for school facilities, there would be no impact.

Parks and Other Public Facilities?

Because the proposed project would not introduce new residents to the area, it would not result in the need for new or expanded parks or other public facilities. There would be no impact.

Mitigation Measures

The proposed project would have no impact on public services and therefore, no mitigation is required.

References

City of Roseville. 2013. *Location of Roseville Police and Fire Stations*. May. Roseville, California. Available: http://www.roseville.ca.us/civicax/filebank/blobdload.aspx?BlobID=28088. Accessed: February 20, 2017.

3.2.15 Recreation

XV. Recreation	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☐	☒

Setting

The project site is on land designated for public and quasi-public uses, as described in the *City of Roseville General Plan 2035* and the City's Zoning Ordinance.

The nearest existing park is Norm Fratis Park, a neighborhood park approximately 0.7 mile southeast of the project site. Several parks are proposed within the *West Roseville Specific Plan* and *Creekview Specific Plan* areas. The Placer Valley Sports Complex, a regional sports park, is planned immediately east of the project site, and a citywide park is proposed south of the regional sports park site. Additional parks are planned and under development in the Westpark area.

Impact Analysis

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?

The proposed project involves construction and operation of a solar power facility. It would not introduce new residents to the area and would not increase the use of existing neighborhood and regional parks or other recreational facilities. There would be no impact.

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

The proposed project does not include construction of recreational facilities and would not require the construction of new recreational facilities or the expansion of

existing recreational facilities that might have an adverse physical effect on the environment. Therefore, the proposed project would have no potential adverse physical effects on the environment associated with the construction of recreational facilities. There would be no impact.

Mitigation Measures

The proposed project would have no impact on recreational facilities. Therefore, no mitigation is required.

3.2.16 Transportation/Traffic

XVI. Transportation/Traffic	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b. Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e. Result in inadequate emergency access?	☐	☐	☒	☐
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Setting

Regulatory Setting

State

Caltrans is responsible for operating and maintaining all state-owned roadways and interstate highways in California. Caltrans sets maximum load limits for trucks and

safety requirements for oversized vehicles that operate on highways. Highways in Placer County are under the jurisdiction of Caltrans District 3.

The California Vehicle Code, Division 15, Chapters 1 through 5 (Size, Weight, and Load) gives Caltrans discretionary authority to issue special permits for the movement of vehicles and loads exceeding statutory limitations on the size, weight, and loading of vehicles operated on highways. A special permit issued by Caltrans is required to authorize the operation of oversize or overweight trucks. In addition, Sections 660–711 of the California Street and Highway Code require permits from Caltrans for any roadway encroachment during truck transportation and delivery. The regulations for the care and protection of state and county highways require permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.

Finally, state law requires each city and county to adopt a comprehensive, long-range general plan, including a circulation element, to guide its physical development. The applicable local documents are described below.

Local

Placer County 2036 Regional Transportation Plan

The Placer County Transportation Planning Agency's (PCTPA's) *Placer County 2036 Regional Transportation Plan*, approved in 2016, outlines the existing modes of transportation and identifies needed improvements to guide the systematic development of a balanced, comprehensive, multimodal transportation system integrated with land use and air quality planning to meet Placer County's transportation needs (Placer County Transportation Planning Agency 2016). PCTPA serves as the County's designated Congestion Management Agency and implements an alternative transportation outreach effort as part of the *Placer County 2036 Regional Transportation Plan* to meet its congestion management program requirements (Placer County Transportation Planning Agency 2016). The *Placer County 2036 Regional Transportation Plan* also functions as the local transportation plan incorporated into the larger Sacramento Area Council of Governments' *Metropolitan Transportation Plan and Sustainable Communities Strategy*. As one of the cities within Placer County, Roseville is a member of PCTPA. The *Placer County 2036 Regional Transportation Plan* includes the following relevant goals and policies.

Goal 1: Highways/Streets/Roadways. Maintain and upgrade a safe, efficient, and convenient countywide roadway system that meets the travel needs of people and goods through and within the region.

Goal 5: Goods Movement. Provide for the safe and efficient movement of goods through, within, and into Placer County.

Goal 9: Integrated Land Use, Air Quality and Transportation Planning. By integrating land, air, and transportation planning, build and maintain the most efficient and effective transportation system possible while achieving the highest possible environmental quality standards.

Objective A, Policy 3. Encourage jurisdictions to require land uses which produce significant trip generation to be served by roadways with adequate capacity and design standards to provide safe usage for all modes of travel.

Objective B, Policy 2. Encourage jurisdictions to review and assess the impact of new development proposals consistency with the regional sustainable communities strategy, and the impact on local circulation plans and transit system demand and supply.

City of Roseville General Plan 2035

The Circulation Element of the *City of Roseville General Plan 2035* includes the following relevant goals and policies.

Functional Classification Goal 1. Provide guidance to the long-range planning of the City's roadway system including design standards, right-of-way requirements and coordination with surrounding jurisdictions.

Functional Classification Policy 4. Maintain a system of truck routes to provide for the safe and efficient movement of goods and to avoid impacting residential neighborhoods.

Level of Service Goal 1. Maintain an adequate level of transportation service for all of Roseville's residents and employees through a balanced transportation system, which considers automobiles, transit, bicyclists, and pedestrians.

Level of Service Policy 1. Maintain a level of service (LOS) "C" standard at a minimum of 70 percent of all signalized intersections and roadway segments in the City during the a.m. and p.m. peak hours. Exceptions to the LOS “C” standard may be considered for intersections where the City finds that the required improvements are unacceptable based on established criteria identified in the implementation measures. In addition, Pedestrian Districts may be exempted from the LOS standard.

Bikeways/Trails Goal 2. Establish and maintain a safe, comprehensive and integrated bikeway and trail system that encourages the use of bikes and walking for commuting, recreational and other trips.

Environmental Setting

Roadway Network

The project site is located in northwest Roseville, north of Phillip Road and west of the northern terminus of Westpark Drive. Interstate (I-) 80, a major east-west truck travel route and main throughway in Placer County, and State Route (SR) 65, a north-south highway connecting I-80 on the south and SR 70 on the north, provide regional access. State-approved truck routes in the project vicinity include Pleasant Grove Boulevard and Fiddyment Road (City of Roseville 2016). In addition,

Westbrook Boulevard and Blue Oaks Boulevard are federally approved truck routes (City of Roseville 2016).

Roads near the project site include two-lane rural roads (Phillip Road), urban arterials, collector roadways, and local streets within the nearby specific plan areas. Arterials typically have four to six travel lanes, bike lanes, and a landscaped median, and are designed to move large volumes of traffic efficiently through an area. Arterials near the project site include Fiddyment Road, Pleasant Grove Boulevard, Westbrook Boulevard, and Blue Oaks Boulevard (City of Roseville 2016). Collector streets generally have two to four travel lanes, as well as bike lanes, and are intended to carry local traffic to the arterials. Collectors near the project site include Westpark Drive, Hayden Parkway, Brookstone Drive, and Bob Doyle Drive (City of Roseville 2016). Local streets provide direct access between individual parcels and the larger collector and arterial street system.

No signalized intersections are present within 1 mile of the project site.

Transit System

The City operates both fixed-route bus and demand-responsive dial-a-ride services throughout much of Roseville. No fixed-route bus service is currently available within 1 mile of the project site.

Bicycle/Pedestrian System

Class II bicycle lanes (designated on-street with appropriate signing and striping) are present along both directions of Durango Way and Blue Oaks Boulevard. Additional Class I (off-street dedicated path) and Class II bicycle facilities are planned for Westpark Drive and for the planned Blue Oaks Boulevard westward extension immediately north of the project site, as well as along the eastern side of the project site between Westpark Drive and the Blue Oaks Boulevard extension (City of Roseville 2016). Sidewalks are present along the majority of nearby streets. However, s Phillip Road and Westpark Drive have no sidewalks.

Impact Analysis

a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Most of the project's traffic would occur during construction and would consist of employee commuting and equipment and materials deliveries. The average construction workforce is expected to range from 2 workers during Phase 1 to a

maximum of 10 workers during Phase 4. Each worker is expected to generate two round-trip personal vehicle trips per day. Phase 4 would, therefore, generate 20 round-trip worker vehicle trips per weekday for 8 weeks. Equipment and materials deliveries would require a maximum of two daily truck round-trip truck trips over approximately 4 months during Phase 1 through Phase 4. Both personal and construction vehicles would access the project site from Phillip Road, and are expected to reach Phillip Road from the designated truck routes. The addition of a maximum of 22 vehicle trips to area roadways over 8 weeks during project construction would not conflict with an applicable plan, ordinance, or policy related to the performance of the circulation system.

The project consists of an unmanned PV array with no onsite personnel during project operation with the exception of occasional O&M trips to address issues not easily resolved remotely. Project operation is expected to require up to four such O&M vehicle trips to the site each year as well as four trips per year with a 500-gallon trailer for panel washing, for a total of eight round-trip O&M trips per year. The addition of eight vehicle trips per year to nearby roadways would not affect existing traffic conditions to the point of conflict with an applicable plan, ordinance, or policy related to the performance of the circulation system.

Project decommissioning would require removal of the equipment and facilities from the project site. Thus, traffic generated during project decommissioning would be similar to construction traffic. The addition of up to 22 daily vehicle trips to area roadways during several weeks of project decommissioning would not conflict with an applicable plan, ordinance, or policy related to the performance of the circulation system.

Because project construction and decommissioning would add a relatively low number of vehicle trips to area roadways for a short duration, and because facility operation would generate a negligible amount of traffic, impacts associated with the project's potential to conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system would be less than significant and no mitigation is required.

b) Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?

PCTPA is the designated Congestion Management Agency for Placer County, including Roseville. PCTPA's *Placer County 2036 Regional Transportation Plan* directs the region's policy, actions, and funding to address Placer County's short- and long-term multi-modal transportation system needs. Because it would generate minimal traffic during construction and decommissioning, and negligible traffic during

operations, the project would not conflict with the *Placer County 2036 Regional Transportation Plan* or other PCTPA programs. There would be no impact.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The nearest public airports to the project site are McClellan Airfield, approximately 7.5 miles south, and Lincoln Regional Airport, approximately 7.8 miles north. The proposed project is not within any airport land use plan or safety zone and would not affect any air traffic patterns. There would be no impact.

d) Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Project site access would be provided from Phillip Road along the east side of the Roseville Energy Park. The proposed access point has unimpeded views to and from Phillip Road, a low traffic volume two-lane roadway. The project would not alter any existing or planned roadways and does not include any design features or incompatible uses that would result in hazardous traffic conditions. Design features would not increase hazards for motorists, bicyclists, or pedestrians. There would be no impact.

e) Result in inadequate emergency access?

All nearby public roads would remain open and available for use by emergency vehicles and other traffic during project construction. No road closures or lane closures are expected during project construction, operation, or decommissioning. The facility would be accessed by a gravel road extending from Phillip Road through a locked gate, equipped with a KNOX box lock per adopted Fire Code, on the east side of the Roseville Energy Park.

Twenty-foot-wide gravel roads would separate fields of panels and accommodate emergency and fire vehicle access in all weather conditions. The maintenance roads would also allow emergency personnel to access the project's main disconnect and inverter disconnects. The project plans would be reviewed by the appropriate City departments to ensure conformance with all applicable fire-safety code and ordinance requirements for emergency access. Therefore, this impact would be less than significant and no mitigation is required.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The project would not conflict with adopted policies, plans, or programs related to public transit, bicycle, or pedestrian facilities. The nearest public transit facilities are more than 1 mile from the project site. The two nearest roadways, Phillip Road and

Westpark Drive, have no pedestrian facilities. Installation, operation, and decommissioning of the solar facilities would not conflict with any alternative transportation policies in place at this time. Because the facility would be unmanned and only generate eight round-trip vehicle trips per year, the project has no potential to conflict with adopted policies, plans, or programs related to alternative means of transportation. There would be no impact.

Mitigation Measures

The proposed project would have no impact on transportation and traffic. Therefore, no mitigation is required.

References

City of Roseville. 2016. *Roseville General Plan 2035*. Available: http://www.roseville.ca.us/gov/development_services/planning/general_plan_n_development_guidelines.asp?grpxver=mob. Accessed: September 29, 2017.

Placer County Transportation Planning Agency. 2016. *Final Placer County 2036 Regional Transportation Plan*. Available: http://www.pctpa.net/library/rtp/2036/RTP/Final_2036_RTP_Full.pdf. Accessed: September 29, 2017.

3.2.17 Tribal Cultural Resources

XVII. Tribal Cultural Resources	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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), or	☐	☐	☐	☒
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in 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.	☐	☐	☐	☒

Setting

AB 52, effective July 1, 2015, requires a lead agency to offer Native American tribes the opportunity to consult on CEQA documents. Lead agencies must consult with Native American tribes as needed to satisfy AB 52 requirements for the identification of Traditional Cultural Resources (TCRs), tribal input regarding impacts on TCRs and, if applicable, mitigation measures that would reduce impacts on TCRs to a less-than-significant level.

On October 12, 2016, the City of Roseville sent certified letters to the Tribes listed below requesting consultation or information regarding tribal resources in the project area. The letters requested a response within 30 days. Receipts for the certified letters were received with the exception of Tsi' Akim Maidu, which refused acceptance of the letter. To date, no responses regarding consultation have been received.

- United Auburn Indian Community of the Auburn Rancheria
- Ione Miwok
- Torres Martinez
- Shingle Springs Band of Miwok Indians
- Tsi' Akim Maidu

Impact Analysis

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)?

Or

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

As described in Section 3.2.5, *Cultural Resources*, no resources that qualify as historical or archaeological resources as defined in State CEQA Guidelines Section 15064.5 were identified. Similarly, no tribal resources were identified through consultation efforts. Therefore, it is expected that the project would not result in impacts on tribal cultural resources. There would be no impact.

Mitigation Measures

The proposed project would have no impact on tribal resources. Therefore, no mitigation is required.

3.2.18 Utilities and Service Systems

XVIII. Utilities and Service Systems	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	☐	☐	☐	☒
e. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Setting

Wastewater

The project site is not serviced by any public sewer system. Two wastewater treatment facilities—the Dry Creek Wastewater Treatment Plant and the Pleasant Grove Wastewater Treatment Plant—serve Roseville. The Pleasant Grove Wastewater Treatment Plant, west of Phillip Road immediately south of the Roseville Energy Park, provides tertiary-level treatment for wastewater generated by the urbanized areas near the project site. Current treatment capacity of the Pleasant

Grove Wastewater Treatment Plant is 9.5 million gallons per day (mgd) (City of Roseville 2016). A planned expansion of the Pleasant Grove Wastewater Treatment Plan would increase its treatment capacity to 12 mgd (City of Roseville 2016).

Water

There is no existing water service at the project site. The City of Roseville provides water service to areas within the city, including the adjacent Roseville Energy Park. Roseville uses multiple water sources, including surface water, recycled water for landscaping, and, in dry years or emergency situations, groundwater.

Stormwater Drainage

Stormwater drainage facilities in urbanized areas of Roseville, including the area south of the Roseville Energy Park, consist of surface gutters, subsurface drainage pipes, canals, and retention basins. The project site is vacant ruderal grassland bordered on the west and east by undeveloped parcels and on the south by the Roseville Energy Park. The project site is located in a rural setting; stormwater runoff drains primarily through natural drainage swales, ditches, and watercourses. No developed stormwater drainage facilities are present on the project site. See Section 3.2.9, *Hydrology and Water Quality*, for further discussion of project site drainage characteristics.

Solid Waste Disposal

The City collects solid waste generated in Roseville and hauls it to the Materials Recovery Facility (MRF) at the Western Placer Waste Management Authority's Western Regional Sanitary Landfill. The Western Placer Waste Management Authority is a joint powers authority made up of Placer County and the Cities of Roseville, Rocklin, and Lincoln. The landfill is a Class II/III non-hazardous municipal solid waste facility located southeast of the Athens Avenue and Fiddyment Road intersection between Roseville and Lincoln in unincorporated Placer County. The MRF has a municipal solid waste processing capacity of approximately 2,025 tons per day and a construction/demolition, wood, and green waste processing capacity of approximately 400 tons per day for a combined processing capacity of approximately 2,425 tons per day (California Department of Resources Recycling and Recovery 2016).

The landfill has a daily permitted capacity of 1,900 tons per day and a total permitted capacity of 36,350,000 cubic yards (California Department of Resources Recycling and Recovery 2012). As of July 1, 2013, the landfill had a remaining capacity of 25,677,600 cubic yards (City of Roseville 2016). The landfill has an estimated closure date of 2058 (California Department of Resources Recycling and Recovery 2017).

Impact Analysis

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

And

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

And

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

The project would not exceed applicable wastewater treatment requirements because the proposed project consists of an unmanned PV array that would not be connected to a public sewer system and would not generate wastewater. Because the project would not require wastewater treatment service, no construction or expansion of wastewater systems would be required, and the project would not affect wastewater treatment capacity. During construction, one or more portable toilets would be placed on the project site; wastewater would be contained within the portable toilet and ultimately disposed of at an approved site. During project operations, no personnel would be onsite, and no offsite wastewater treatment would be necessary. There would be no impact.

c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The project would not include or require the construction or expansion of stormwater drainage facilities because most of the site would remain permeable and the project is expected to result in negligible effects on runoff quantities and drainage patterns. The only impermeable surface would be the 12- by 30-foot concrete equipment pad. All access and maintenance roads would be graveled. Perimeter roads and the areas under the PV panel strings would consist of compacted earth cleared of vegetation. During project construction, water trucks would provide water to the site for soil compaction and dust suppression. During project operation, the solar panels would be cleaned annually, or as required by weather events, using uncontaminated water and no cleaning agents. This water would discharge onto the ground. There would be no impact.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?

The project would not require the provision of water from public sources. No water system would be built as part of the project, because the facility would be unmanned and visited only occasionally for O&M activities. The only water used by the project would be trucked onto the site during construction activities for soil compaction and construction dust suppression and approximately once a year thereafter for panel washing purposes. There would be no impact.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

And

g) Comply with federal, state, and local statutes and regulations related to solid waste?

The project would not generate solid waste during operation. Solid waste generated during construction would include debris such as concrete, scrap metal, and similar materials. The project is expected to be a balanced site requiring limited to no grading and no import or export of dirt. Soils moved during the minimal earthwork anticipated would be used elsewhere within the project site. Waste materials generated during construction would be disposed of appropriately at the Western Regional Sanitary Landfill or its associated MRF.

The material composition of the facility, other than the electrical equipment, is directly reusable or recyclable with minimal processing required at decommissioning. During project decommissioning, the project's steel tracker components, PV modules, electrical wire, and major electrical equipment (e.g., inverters, transformers, switchgear) would be removed from the site and sold or recycled. It is anticipated that the concrete equipment pad would be demolished and either recycled or sent to a landfill.

With an estimate closure date of 2058 and a remaining capacity of slightly more than 25 million cubic yards, the Western Regional Sanitary Landfill would be capable of accommodating the project's construction and decommissioning solid waste disposal needs.

Given the nominal demand that the project would place on remaining landfill capacity and the substantial reuse and recycling potential of project components, the project would have a limited impact on landfill capacity and would comply with relevant statutes and regulations related to solid waste. This impact would be less than significant and no mitigation is required.

Mitigation Measures

The proposed project would have less-than-significant impacts on utilities and service systems. Therefore, no mitigation is required.

References

California Department of Resources Recycling and Recovery. 2012. *Solid Waste Facility Permit 31-AA-0210*. Available: http://www.calrecycle.ca.gov/SWFacilities/Directory/31-AA-0210/Detail/. Accessed: September 27, 2017.

California Department of Resources Recycling and Recovery. 2016. *Western Placer Waste Management Authority Materials Recovery Facility Transfer Processing Report*. Available: http://www.calrecycle.ca.gov/SWFacilities/Directory/31-AA-0001/Document. Accessed: September 27, 2017.

California Department of Resources Recycling and Recovery. 2017. *Facility/Site Summary Details: Western Regional Landfill (31-AA-0210)*. Available: http://www.calrecycle.ca.gov/SWFacilities/Directory/31-AA-0210/Detail/. Accessed: September 27, 2017.

City of Roseville. 2016. *Pleasant Grove Wastewater Treatment Plant Expansion and Energy Recovery Project CEQA-Plus Initial Study/Mitigated Negative Declaration*. Available: http://www.roseville.ca.us/civicax/filebank/blobdload.aspx?BlobID=37042. Accessed: September 27, 2017.

3.2.19 Mandatory Findings of Significance

XIX. Mandatory Findings of Significance	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Does the project have the potential to 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 a rare or endangered plant or animal, 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?	☐	☐	☒	☐

a) Does the project have the potential to 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 a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

As stated in Section 3.2.4, *Biological Resources*, the project would not cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. Seasonal wetlands on and adjacent to the development site support suitable habitat for federally listed branchiopods. Potentially significant impacts on these habitats and associated federally listed species will be avoided through the implementation of Mitigation Measure BIO-1. Ground-nesting migratory birds and raptors, including burrowing owls and northern harriers (California species of special concern), could nest in and adjacent to the

project site. In addition, nearby riparian and oak woodland habitats provide suitable nesting habitat for Swainson's hawk (state-listed as threatened) and white-tailed kites (fully protected). Project construction could result in removal or disturbance of occupied bird or raptor nests during the breeding season. Implementation of Mitigation Measure BIO-2 would reduce this impact to a less-than-significant level.

Although the project site contains no documented cultural resources, one prehistoric site was identified within 0.5 mile of the project site, and the potential exists to encounter previously undiscovered resources during construction-related ground disturbing activities. Implementation of Mitigation Measures CUL-1 and CUL-2 would ensure that the project would not significantly affect examples of the major periods of California history or prehistory.

Section 3.2.6, *Geology and Soils*, notes that the Riverbank Formation underlying the project site is known to be sensitive for paleontological resources, and states that construction activities could destroy such resources or alter their stratigraphic context. Implementation of Mitigation Measures GEO-1 and GEO-2 would reduce potential geologic and paleontological impacts to a less-than-significant level.

With implementation of mitigation measures, the project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of any 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 a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. These impacts would be less than significant with mitigation.

b) Does the project have impacts that are individually limited but cumulatively considerable?

The analysis above concludes that the project would have either no impact or less-than-significant localized impacts on a number of resources (aesthetics, agricultural and forestry resources, air quality, biological resources, cultural resources, geology and soils, GHG emissions, hazardous materials, hydrology and water quality, land use, mineral resources, noise, traffic, and tribal cultural resources). Because the project would not induce population growth or result in the development of new housing or employment-generating uses, it would not combine with cumulative development to increase the demand for public services, recreation facilities, or utilities, the expansion of which could result in significant environmental effects. Further, the analysis indicates that lifetime operation of the project would reduce GHG emissions, resulting in a beneficial effect on GHG emissions. Implementation of Mitigation Measures BIO-1, BIO-2, CUL-1, CUL-2, GEO-1, and GEO-2 would minimize potential localized construction impacts on nesting migratory birds and raptors, wetlands, endangered species, cultural resources, and paleontological resources.

The project would not result in a considerable contribution to cumulative impacts because its impacts would not combine with those of cumulative development. The project's contribution to cumulative impacts would be less than significant.

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

The project would have no significant adverse effects on human beings. There would be no significant increase in construction-related or operational air emissions or noise levels, and there would be no significant exposure to geologic or seismic hazards or to hazardous materials as a result of the project. For all other topics, there would be either no impact or a less-than-significant impact. Therefore, the project's impacts on human beings would be less than significant.

Appendix A
Biological Resources Letter

January 24, 2018

Nathan Ribordy
Roseville Electric Utility
City of Roseville
5120 Philip Rd.
Roseville, CA 95747

Subject: **Regulatory Guidance for Phase 1**
Roseville Community Solar Project
Roseville, Placer County, California

Dear Mr. Ribordy:

The purpose of this letter is to explain what activities are permitted within the areas surrounding the City of Roseville's existing energy plant, and conservation measures that should be employed during construction to avoid obtaining a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers (Corps) or a 401 water quality certification (Central Valley Regional Water Quality Control Board).

It is our understanding that the Community Solar project will be handled in two phases. The first phase will consist of approximately 6.08 acres and will be implemented in the existing REP permitted area and within the 250 foot buffer surrounding the REP permitted area (attached figure). The second phase will be a future project with a larger footprint that includes wetland impacts. You have indicated that the first phase is designed not to impact any wetlands.

As required by the U.S. Fish and Wildlife Service, mitigation was purchased for indirect impacts to vernal pool fairy shrimp and tadpole shrimp habitat within the 250 feet surrounding the existing energy plant (see attached figure). However, a Section 404 permit authorizing fill to wetlands was not obtained within this buffer area. The proposed Community Solar Project may not be constructed within this area without a 404 permit if fill is placed in any wetland as shown on the attached figure. If fill is not placed within any of the wetlands and conservation (avoidance) measures are implemented to ensure this, the project may proceed without a 404 permit.

The following protective (avoidance) measures, if implemented, will minimize indirect impacts to wetlands within the 250-foot buffer established for the now-built REP project.

These protective measures will also enable the project to be constructed without obtaining a 404 permit:

- No ground disturbance should occur within five (5) feet of delineated wetlands;
- A qualified biologist should clearly mark the wetland boundaries and orange construction fencing should be installed a minimum of five (5) feet around each wetland feature in the work area to prevent unintentional disturbance of sensitive areas;
- Solar panels should be located in such a way that runoff from the panels does not pour directly into a delineated wetland;
- All work should occur in the dry season (typically May through October) to prevent sediment from entering existing wetlands;
- The outer boundary of the work area should be clearly marked by orange construction fencing to prevent unintentional fill of wetlands outside of the project boundary;
- Access roads to and from the work site should be clearly marked to limit the possibility of unintentionally impacting all existing wetlands;
- Only rubber-tired vehicles should be used to construct the proposed project;
- Any questions about wetland boundaries or allowed activities should be directed to a qualified biologist.

There is a narrow area labeled as "Potential Future Impact Area" (PFIA) (shown as a hatch mark) on the attached figure. This area is between the 250 foot buffers for two different projects. No permits cover the PFIA and direct or indirect impacts to the wetlands within this area are not authorized. If any Phase 1 work or ground disturbance is to occur within 25 feet of wetlands delineated within the PFIA, the following additional measures shall be implemented to protect existing wetlands from potential indirect impacts:

- No Phase 1 work or ground disturbance shall occur within 25 feet of PFIA delineated wetlands;

- A qualified biologist shall clearly mark the wetland boundaries of SW-24, SW-23, and WS-2. Silt fencing and orange construction fencing shall be installed to create a no-entry/no-disturbance buffer a minimum of 25 feet from the southern edge of the wetland boundaries (25 feet south of the northern Phase 1 project boundary as shown on attached figure).

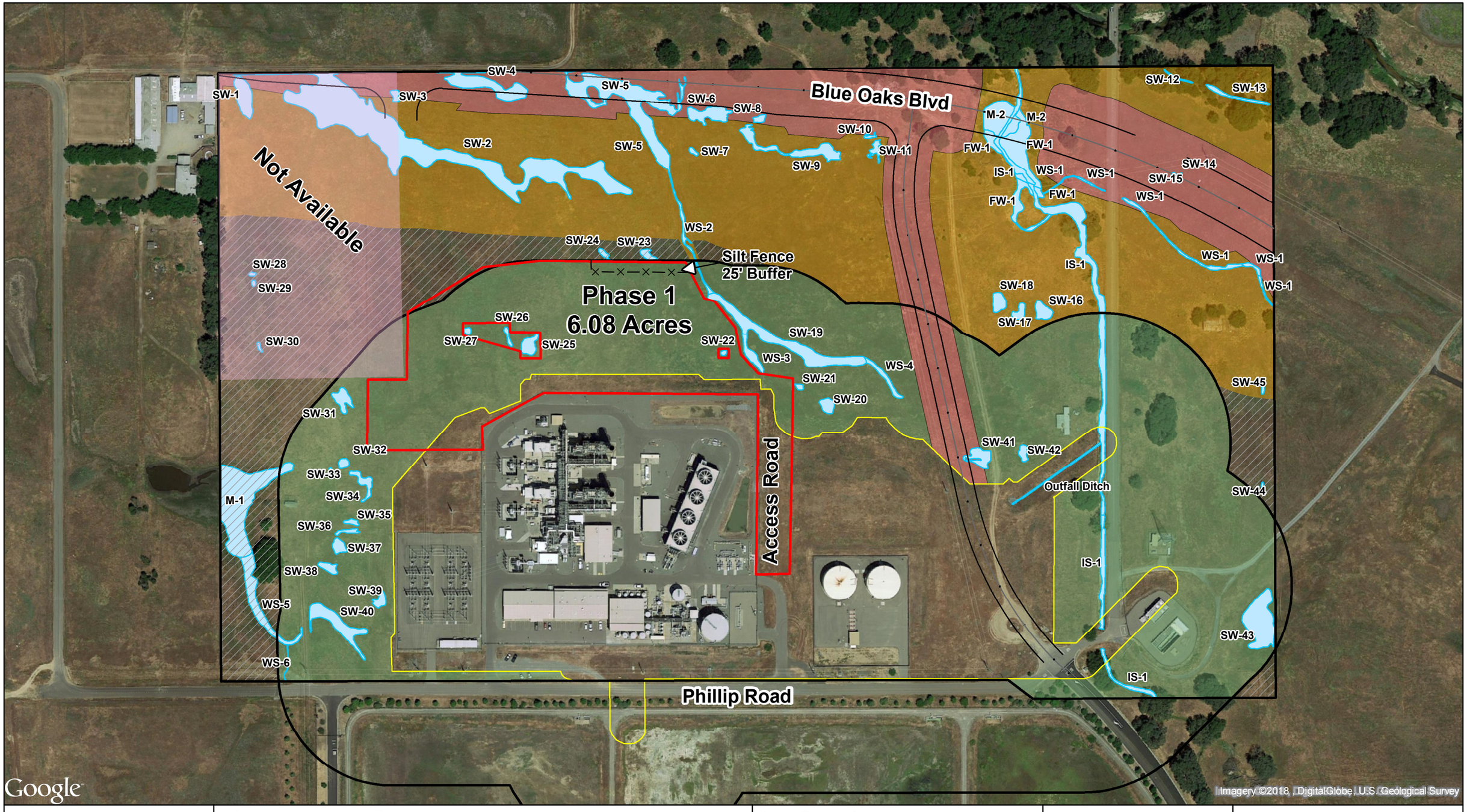
It should be noted that there is one small area along the northwest Phase 1 project boundary that overlaps into the PFIA (see attached figure). Because there are no PFIA delineated wetlands within this "overlap" area, or within 25 feet, there is no potential for direct or indirect impacts to PFIA delineated wetlands and Phase 1 work can proceed consistent with the general protection measures described above.

Please do not hesitate to contact Jinnah Benn or me if you have any questions about allowed activities within the proposed project boundaries or the above listed conservation measures.

Sincerely,

Jeff Glazner
Principal

Attachment: Roseville Energy Park Permitting Status Figure



Salix consulting, inc.

Roseville Energy Park

- Parcel (±72ac)
- Permitted REP
- REP 250' Indirect Impacts Mitigation Purchase (USFWS)
- Silt Fence
- Phase 1
- Potential Future Impact Area
- Existing Wetlands

Blue Oaks Boulevard Extension

- Direct Impact (Near Future)
- 250' Indirect Impact (USFWS) (Near Future)
- Existing Wetlands

N

0 100 200

Feet

ROSEVILLE COMMUNITY SOLAR PROJECT
PROPOSED WETLAND IMPACTS

Roseville, Placer County, CA

January 23, 2018