



Draft Initial Study and Mitigated Negative Declaration

Palmdale Water District
Solar Energy Project

Prepared for:

Palmdale Water District
2029 E Ave Q
Palmdale, CA 93550

Prepared by:

Woodard & Curran
801 T Street
Sacramento, CA 95811

woodardcurran.com

**Palmdale Water
District**
November 2022

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ACRONYM LIST

AB	Assembly Bill
AC	alternating current
AF	acre-feet
APCO	Air Pollution Control Officer
AVAQMD	Antelope Valley Air Quality Management District
BESS	battery energy storage system
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CAISO	California Independent System Operator
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CH ₄	methane
CNDDDB	California Natural Diversity Database
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalents
dc	direct current
District	Palmdale Water District
DTSC	(California) Department of Toxic Substances Control
EAP	Energy Action Plan
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
FTBMI	Fernandeño Tataviam Band of Mission Indians
GHG	greenhouse gas
HQ	headquarters
IPaC	Information for Planning and Consultation
IS/MND	Initial Study/Mitigated Negative Declaration

ITP	Incidental Take Permit
IUCN	International Union for Conservation of Nature
kWh	kilowatt hours
kWh/AF	kilowatt hours per acre-foot
MG	million gallons
MND	Mitigated Negative Declaration
MT	metric ton
MT/yr	metric tons per year
MWh	Megawatt hours
NAAQS	National Ambient Air Quality Standards
NO ₂	nitrogen dioxide
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
PCS	Power Conditioning System
PFYC	Potential Fossil Yield Classification
PM	particulate matter
PV	photovoltaic
PWD	Palmdale Water District
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control or Data Acquisition
SCE	Southern California Edison
SIPs	State Implementation Plans
SMBMI	San Manuel Band of Mission Indians Cultural Resources Department
SO ₂	sulfur dioxide
SO _x	oxides of sulfur
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
USAF	United States Air Force
USEPA	United States Environmental Protection Agency
UWMP	Urban Water Management Plan
VMT	Vehicle Miles Traveled
VOC	volatile organic compound
WEAP	Worker Environmental Awareness Program

1. INTRODUCTION

1.1 Purpose of this Document

The Palmdale Water District (PWD or District) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to provide the public and Responsible and Trustee Agencies reviewing the proposed Project with information about the potential impacts on the environment. This IS/MND was prepared in compliance with Sections 15070 to 15075 of the California Environmental Quality Act (CEQA) Guidelines of 1970 (as amended), and California Administrative Code, Title 14, Division 6, Chapter 3. In accordance with Section 15070, a Mitigated Negative Declaration (MND) shall be prepared if the initial study shows that either:

- There is no substantial evidence, in light of the whole record before the agency, that the Project may have a significant effect on the environment; or
- If the initial study identifies potentially significant effects, but revisions to the Project would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur.

PWD as the CEQA lead agency has determined that an IS/MND should be prepared for the proposed Project.

1.2 CEQA Process

In accordance with Section 15073 of the CEQA Guidelines, this document is being circulated to local, state, and federal agencies and to interested organizations and individuals who may wish to review and comment on the report. PWD has circulated the IS/MND to the State Clearinghouse for distribution and a 30-day public review (November 7, 2022 to December 6, 2022). PWD will evaluate comments received on the draft IS/MND and will prepare responses to address any substantial evidence that the proposed Project could have a significant impact on the environment. If there is no such substantial evidence, FSSD as lead agency will adopt the MND in compliance with CEQA.

Written comments should be submitted to PWD by 5:00 PM, December 6 2022. Submit comments to:

Adam Ly
Assistant General Manager
Palmdale Water District
2029 E Ave Q
Palmdale, CA 93550

This IS/MND and any comments received during the public review process will be considered by the PWD Board of Directors at a public hearing. Consistent with Assembly Bill (AB) 361 regarding public meetings during the COVID-19 Emergency, Directors may attend the meeting telephonically or by teleconference and the meeting may be accessible telephonically or otherwise electronically to members of the public.

Palmdale Water District
December 12, 2022
6:00 PM
2029 E Ave Q
Palmdale, CA 93550

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2. PROJECT DESCRIPTION

2.1 Project Overview

PWD is proposing to install solar facilities at the District’s Headquarters (HQ Site) located at 2029 East Avenue Q, Palmdale, CA and solar facilities and battery energy storage system at the 6 million gallon (MG) Tank Site (Tank Site) located at 641 E Avenue S, Palmdale, CA at the intersection of East Avenue S and Sierra Highway (herein referred to as the Project). The District is undertaking this Project to mitigate rising energy costs and provide an alternative energy source for District operations.

2.1.1 Existing Conditions

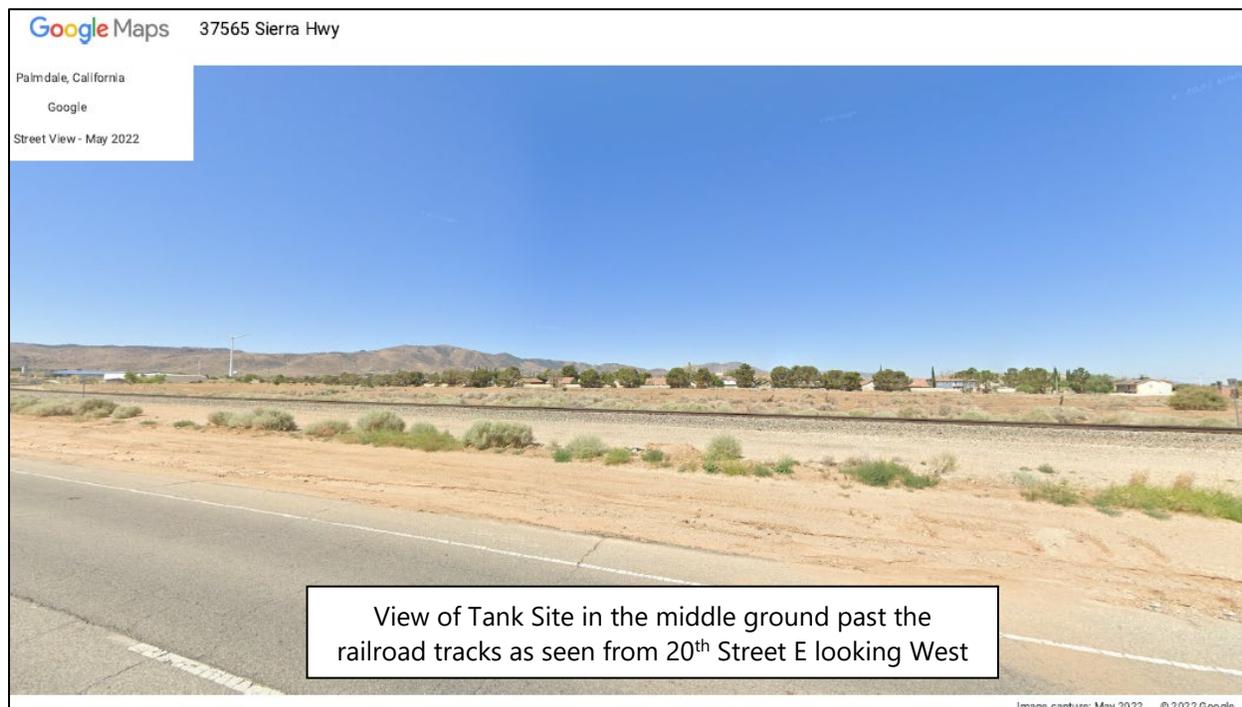
The HQ Site is located in an open, undeveloped field adjacent to, and north of, the District’s headquarters. The HQ Site is designated Public Facility, as shown on the City of Palmdale General Plan Land Use map (City of Palmdale, 2019a) and zoned Public Facility in the City of Palmdale Zoning map (City of Palmdale, 2019b). The HQ Site is currently undeveloped, disturbed, vacant land covered with sparse brush and other vegetation (see **Figure 2-1**).

Figure 2-1: HQ Site Existing Conditions



The Tank Site is located in an open, undeveloped field north of an existing District 6 MG reservoir tank. The Tank Site is designated Single Family Residential (SFR-3) in the City of Palmdale General Plan Land Use map (City of Palmdale, 2019a) and zoned Single Family Residential (R-1-7,000) in the City of Palmdale Zoning map (City of Palmdale, 2019b). The Tank Site is also currently undeveloped, disturbed, vacant land with sparse brush and other vegetation (see **Figure 2-2**).

Figure 2-2: Tank Site Existing Conditions



2.1.2 Project Objectives

Primary Objectives

The proposed Project would provide an alternative energy source for District operations to prevent, minimize, or mitigate damage resulting from emergencies or disasters like power outages, as well as mitigate rising energy costs, which are increasingly a burden on PWD's revenue. PWD uses energy for the extraction and diversion, conveyance, and treatment of water supplies. According to 2020 Urban Water Management Plan (UWMP) (PWD, 2021), the energy intensity for the PWD service area (i.e., total amount of energy expended by PWD to take water from the supply source to the point of delivery) is 381 kilowatt hours per acre-foot (kWh/AF). In 2020, PWD consumed a total of 8,404 megawatt hours (MWh) of electricity. PWD currently sources 100 percent of its electricity from Southern California Edison (SCE). In the event of a regional power outage, PWD's ability to deliver water supplies may be interrupted or reduced significantly. A sustained water supply outage could result in PWD's inability to meet potable water needs for critical functions. Energy costs are also expected to rise as urban water demands continue to increase within PWD's service area. The proposed Project would diversify PWD's energy portfolio, providing system redundancy while also increasing energy cost savings.

Secondary Objectives

PWD seeks to enhance its renewable energy portfolio to meet the District's sustainability goals and help mitigate climate change. Energy consumption from non-renewable sources (such as natural gas) results in greenhouse gas (GHG) emissions, which are the root cause of climate change. Prolonged, intense droughts

as a result of climate change are causing imported water to become an increasingly unreliable source of water for PWD. Project implementation would result in a net offset of non-renewable energy demands with solar energy produced by the solar facilities, resulting in a reduction of GHG emissions and helping to mitigate climate change. As a result, the proposed Project would help PWD achieve the following six District sustainability goals (Personal communication, 2022):

1. Ensure availability and sustainability of management of water.
2. Ensure access to affordable, reliable energy through beneficial use of water.
3. Build resilient water system and foster innovation.
4. Ensure sustainable consumption and production of water.
5. Tackle climate change.
6. Conserve water resources.

2.2 Purpose and Need of the Project

2.2.1 District Background

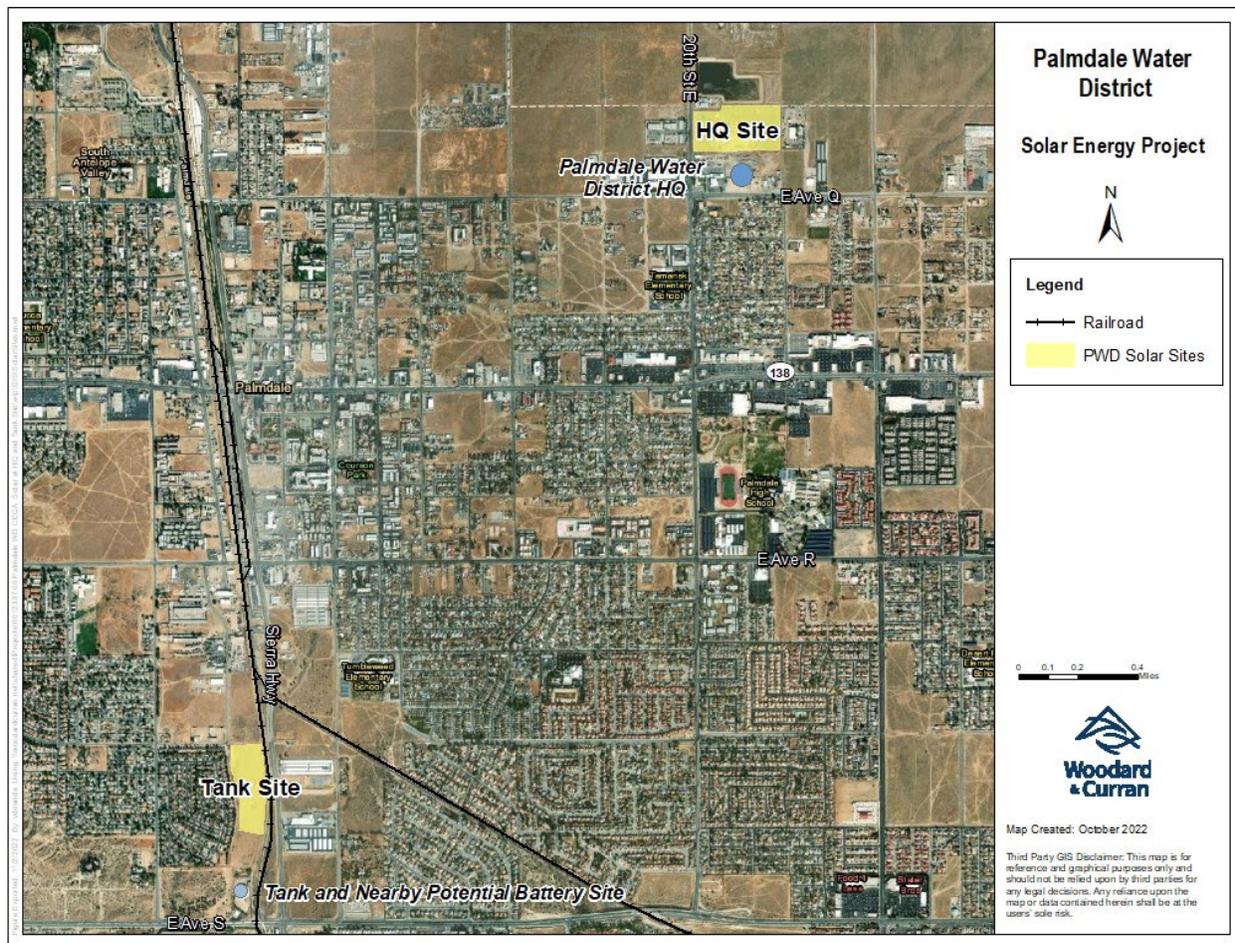
PWD is a municipal and industrial services water supplier located within the Antelope Valley in Los Angeles County, approximately 60 miles north of the City of Los Angeles and includes the central and southern portions of the City of Palmdale and adjacent unincorporated areas of Los Angeles County. Established in 1918, the primary function of the PWD is to provide retail water service within its service area. PWD meets the water demand of its almost 28,000 service connections through a combination of treated surface water from the State Water Project (SWP), local surface water, and groundwater pumped from water supply wells.

2.2.2 Project Location and Setting

The proposed Project locations, HQ Site and Tank Site, are both District-owned parcels adjacent to existing District's facilities, as shown in **Figure 2-3**. The HQ Site is about 20 acres and is located at 2029 East Avenue Q, Palmdale, CA, within Township 06 North Range 11 West. The HQ Site is located adjacent to District headquarters in an industrial/commercial area, surrounded by commercial/industrial uses to the east and the north, 20th Street E, a post office annex and several other businesses to the west, and District headquarters, other businesses, and E Avenue Q to the south.

The Tank Site is about 14 acres and is located west of Sierra Highway between E Avenue S and E Avenue R8, Palmdale, CA, within Township 06 North Range 12 West. Surrounding land uses include single family residential adjacent to the site to the west, and vacant and/or transportation/utilities to the north, south, and east. The Metrolink/Southern California Regional Rail Authority railroad tracks form the eastern border of the Tank Site. Other surrounding land uses include self-storage facilities and other commercial uses to the west of the site on the other side of Sierra Highway from the Tank Site, undeveloped lands to the north, and the Tank Site and undeveloped lands to the south.

Figure 2-3: Location of Proposed Solar Facilities at HQ Site and Tank Site



2.3 Project Characteristics

The proposed Project would construct and operate a 5,304 MWh alternative energy solar array at the HQ Site and a 2,914 MWh alternative energy solar array and battery storage facility at the Tank Site (see **Figure 2-3**). Both sites would include electrical connections from the solar arrays to the existing District facilities. Combined, the proposed solar Project and its related components would be constructed within the 20-acre HQ Site and the 14-acre Tank Site. The proposed solar energy Project would be connected to the existing SCE grid at the District Headquarters building and at the existing PWD 6 MG Tank located south of the Tank Site. The anticipated average maximum depth of ground disturbance is anticipated to be 3 to 5 feet.

2.3.1 Solar Fields

The proposed solar alternative energy project would be either based on a fixed tilt racking system or single-axis tracker system with a total system size of about 3950 kilowatt (kW). A fixed tilt angle solar racking system can be placed at a fixed tilt angle which is usually the optimum tilt to enable it can absorb the most sunlight whereas a single-axis tracker system allows the solar panels, otherwise known as photovoltaic (PV) panels, one axis of movement that is usually aligned north and south, allowing the panels to arc east to

west and track the sun as it rises and sets. The Project would require approximately 2,800 panels for Tank Site and 4,300 panels at HQ Site. Panel dimensions would be approximately 2 feet by 3 feet.

2.3.2 Battery Storage

Energy storage would include an on-the Tank Site intelligent battery energy storage system (BESS). The major electrical equipment includes battery modules and power conversion equipment. The BESS operations would be controlled and monitored remotely by the battery vendor via a Supervisory Control or Data Acquisition (SCADA) platform (described below). The BESS will be designed in accordance with the latest applicable codes and safety certifications (i.e., UL, NFPA, NEC, IEEE) for the design, construction, and operations of the facility.

The primary storage components would consist of self-contained lithium-ion battery systems that leverage the same conventional storage technologies (and vendors) as the batteries in a typical cell phone, laptop computer, or electric vehicle. The battery storage facility is designed such that the periodic maintenance and replacement of the underperforming battery components can be easily performed on an as-needed basis. The BESS and associated infrastructure (e.g., inverters, switches, etc.) would be serviced regularly via planned maintenance according to the manufacturer recommendations and on an as-needed basis by certified technicians.

The battery will be rechargeable and will be specifically selected and designed to perform the required operations within critical safety parameters beyond the planned operations for this facility.

Direct current (DC) electricity would be collected from the batteries and conveyed to the inverters. The typical battery modular energy storage solutions are approximately 8 to 10 feet in height. If the BESS option is included in the final design, the approximately 200-300 square foot of paved pad would be located within the existing Tank Site to the north of the existing tank.

2.3.3 Electrical Collection System

The solar panels would be organized into electrical groups referred to as “blocks” to allow adequate clearance for access roads and adequate access for maintenance. Each block would include an equipment pad containing one or more inverters and transformers. The inverter-transformer equipment pads would be prefabricated or assembled on site. Each inverter would be fully enclosed, be pad- or skid-mounted, and may range in height from approximately 5 to 9 feet. Inverters would be consolidated in areas to minimize cable routing, trenching, and minimal electrical losses. The alternating current (AC) output from the inverters would be routed through an AC collection system and consolidated within system switchgear. The final output from the Project would be processed through a transformer to match the interconnection voltage. The transformers would be pad-mounted and enclosed with a switchgear and a junction box. Electrical safety and protection systems would be provided to meet utility, California Independent System Operator (CAISO), and regulatory codes and standards.

2.3.4 Supervisory Control or Data Acquisition System

A data collection system would be designed to remotely monitor the facility operation and/or remotely control critical components. The fiber optic or other cabling would be installed throughout the solar field to a centrally located SCADA system. The SCADA system would also collect meteorological information for the Project site.

2.3.5 Associated Infrastructure

Associated infrastructure would include unpaved roads to allow access to the solar panels, a chain link perimeter security fence, tie-in to the existing/upgraded switchgear, and an underground distribution line to the point of interconnection with the SCE grid (see **Figure 2-4** and **Figure 2-5**). The distribution line would be buried in a trench.

2.3.5.1 Driveways and Access Roads

The Tank Site would be accessed on the west side of the site at the intersection of 6th St E, E Ave R, and E Ave R 8. The HQ Site would be accessed by one or more access points surround the site. Access may occur via the PWD Headquarters, E Ave P-8, and/or 20th St E. Gates would be installed at access points. The access would allow for emergency vehicles and maintenance and operation purposes. Unpaved access roads would be graded during construction and used for operation and maintenance throughout the Project sites.

2.3.5.2 Security Fencing

The Project site would be surrounded by an 8-foot-tall galvanized chain-link fence and as warranted topped with 1 foot of three- strand barbed wire, for a total fence height of 9 feet. "Warning High Voltage" signs would be placed along the fencing at regular intervals and at each gate pursuant to County and/or state requirements. The fencing would be secured with concrete footings and would have intermittent 12-inch openings along its foot for animal crossings. Fencing may include green visual barrier screening cloth.

2.3.5.3 Lighting

Lighting would be installed at each site entrance of the Project site for nighttime security purposes and at the switchgear area for maintenance purposes. Any lighting would consist of modern, low intensity, downward-shielded fixtures that are motion-activated, and would be directed onto the Project site. Motion detectors would be set at a sensitivity level that could not be triggered by small animal movement. The proposed Project would comply with the City of Palmdale Code Chapter 17.99.010.C, Renewable Energy – Development Standards.

Figure 2-4: HQ Site Layout

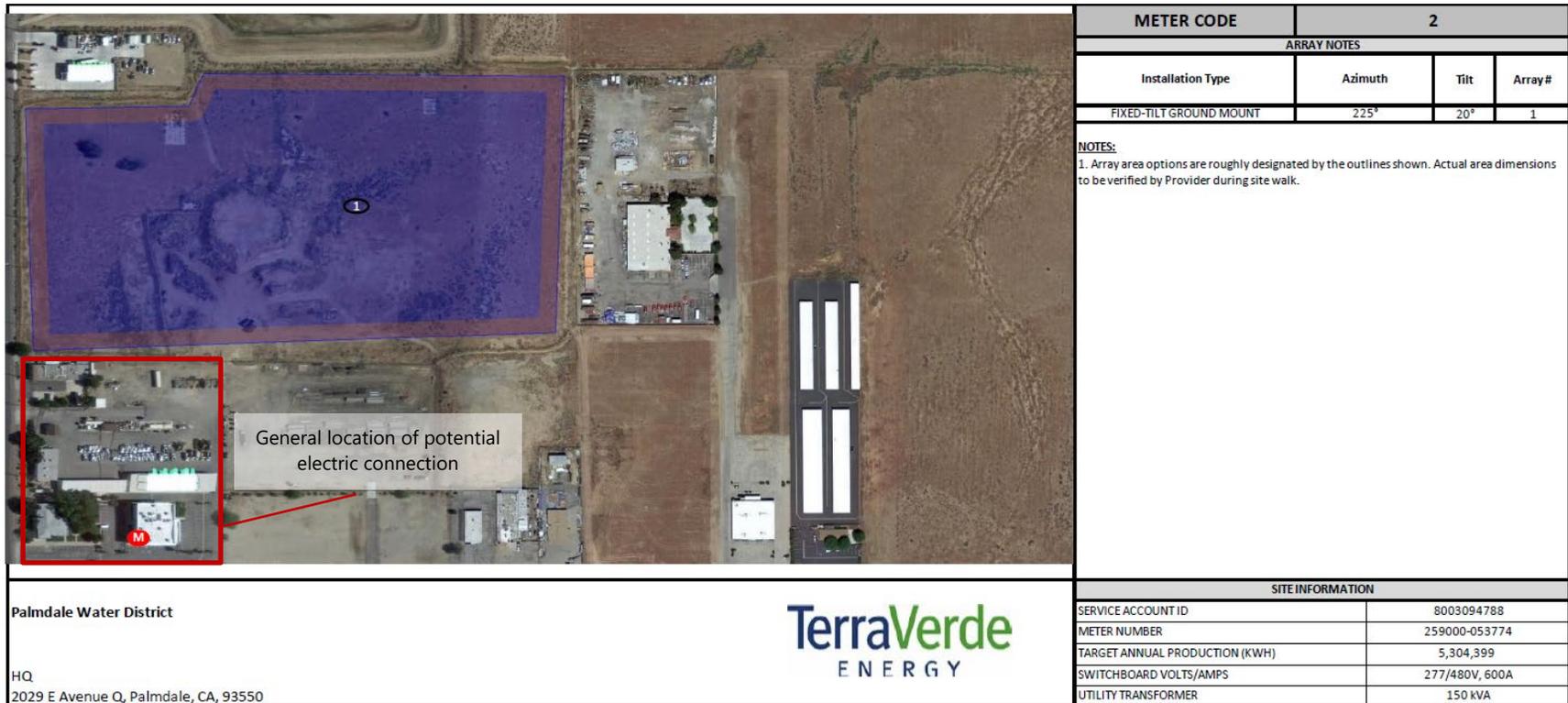
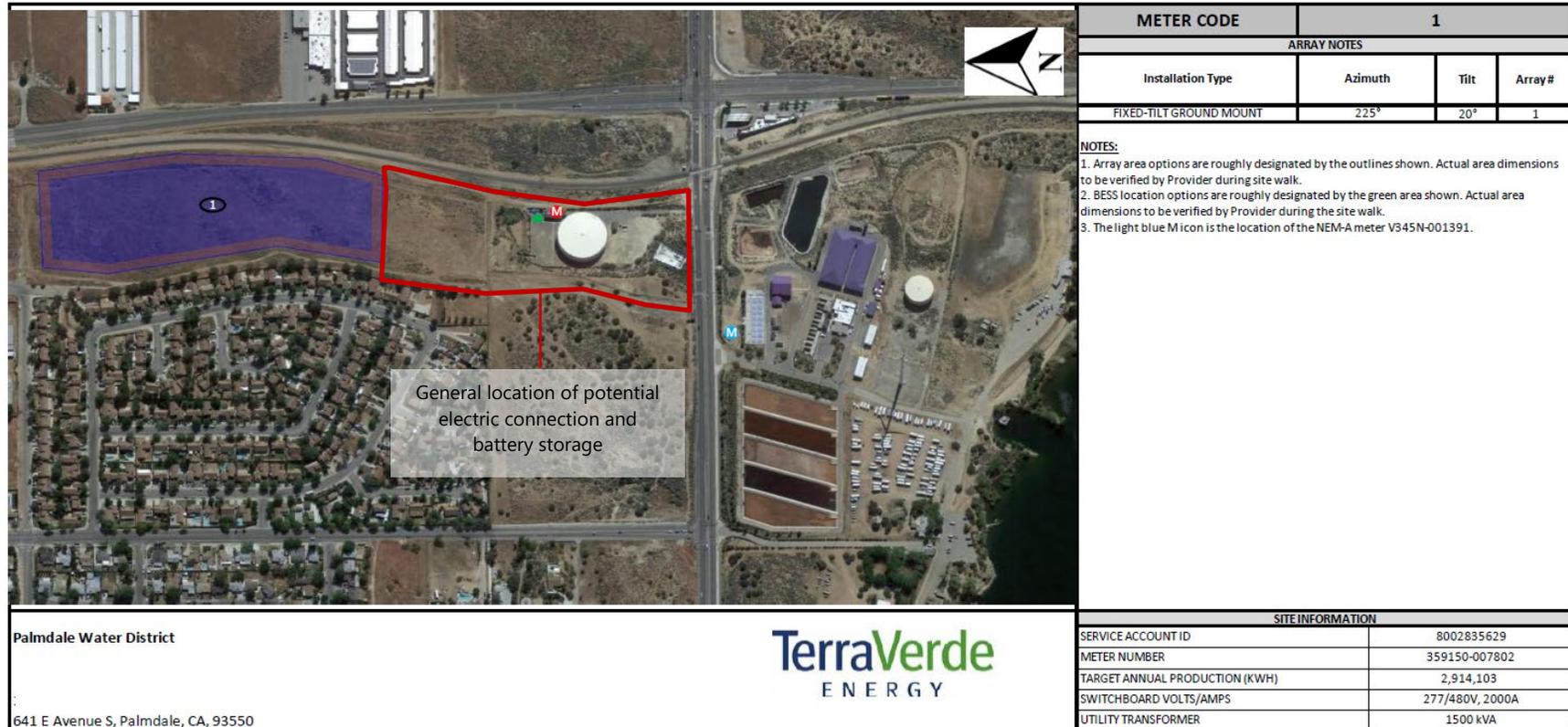


Figure 2-5: Tank Site Layout



2.4 Construction Activities

Project construction would consist of two major phases: (1) site preparation and grading, and (2) PV system/BESS installation. Construction of the Project is estimated to begin in or before the 4th Quarter 2023. **Table 2-1** provides a summary of construction activities for each site and their duration, as well as equipment and personnel that would be needed. Construction activities would be scheduled between 7:00 a.m. and 5:00 p.m., Monday through Friday.

Table 2-1: Summary of Construction Activities

Construction Activities	Duration (Days)	Equipment Type and Number	Number of Personnel
Site Grubbing and Preparation	50	Backhoe (1), Skid steer (1), Motor grader (1), Dump truck (1), Bulldozer (1), Roller (1)	10
Installation			
<i>Site Fences</i>	30	Forklift (1), Flatbed truck (1), Auger (1)	6
<i>Structures (PV arrays, BESS, etc.)</i>	75	Backhoe (1), Forklift (4), PD10 Pile driver (4)	25
<i>Electrical</i>	52	Trencher (1), Backhoe (2), Crane (1), Forklift (3)	60

2.4.1 Site Preparation and Grading

Construction of the Project would begin with initial clearing and grading of the onsite staging areas. Native soils would be used to level the site. Access to the Project site would be improved to for construction and on going maintenance access.

The onsite staging areas would typically include a construction trailer (as needed to support installation phase), a first aid station and other temporary structures (such as portable toilets), worker parking, truck loading and unloading facilities, and an area for assembly. Road corridors would be surveyed, cleared, and graded to bring equipment, materials, and workers to the areas under construction. Buried electrical lines, PV array locations, any necessary environmentally sensitive avoidance areas, and the locations of other facilities may be flagged and staked to guide construction activities. The Project site would be surrounded by a security fence. A secure controlled main access gate would be located at the entrance. A temporary landscape green fabric would be attached to the chain-link fence during construction. Best Management Practices (BMPs) such as straw wattles, use of hydroseeding, and wind screening for erosion control during site preparation would be employed. No import or export of soil from the proposed Project site would be required.

2.4.2 PV System Installation

PV system installation would include earthwork, grading, and landscaping, as well as erection of the PV modules, supports, and associated electrical equipment. The exact design would be finalized pending specific soil conditions. The pads for footings would be required and are estimated to have 3 to 4 foot depths and would be approximately 2 foot by 2 foot (or smaller) squares.

Wastes that would be generated during construction may include cardboard, wood pallets, copper wire, scrap steel, common trash, and wood wire spools. The contractor is not anticipated to generate hazardous waste during construction of the proposed Project. However, field equipment used during construction would contain various hazardous materials such as hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles.

2.4.3 Battery Storage Installation

The District anticipates that the battery storage containers would be constructed on concrete pads on the existing pavement at the Tank Site. The container would be bolted to meet or exceed the seismic requirements applicable to the District. The Power Conditioning System (PCS) and the medium voltage control system (i.e., inverters and transformers) would be mounted to the rack adjacent to the container.

2.4.4 Construction Water Use

Approximately 53 acre-feet (AF) of water would be required during construction, with actual consumption strongly dependent upon climatic conditions. Construction water needs would be limited to soil conditioning and dust suppression. Bottled water would be brought to the Project site for drinking and domestic needs. Required water needs would be met by water available on the existing District sites.

2.5 Operation and Maintenance

Table 2-2 provides an estimate of electricity output during the projected 25-year lifespan of the Project. The facilities would be constructed such that output could be monitored remotely. Normal preventative maintenance and routine inspections of the solar arrays, as well as periodic cleaning of the solar panels, would occur on a monthly or semi-monthly basis.

2.5.1.1 Permanent Site Access

Permanent site access to the Tank Site would use the access points established during construction. For the Tank Site access would be located at the intersection of 6th St E, E Ave R, and E Ave R 8. Access to the HQ Site would be determined during final design, but may be available via the PWD headquarters or from 20th St E.

The site access roads would be maintained on an as-needed basis and could involve re-grading of the unpaved access roads and drainage maintenance. Facilities at both sites would be inspected for signs of deterioration or repair needs on an annual basis. Emergency maintenance and repairs would occur immediately after a failure occurs.

Table 2-2: Summary of Energy Production During the Estimated Life Span of the Project

Year	Energy Production (MWh)
1	8,219
2	8,178
3	8,137
4	8,096
5	8,056
6	8,016
7	7,976
8	7,936
9	7,896
10	7,857
11	7,818
12	7,779
13	7,740
14	7,701
15	7,662
16	7,624
17	7,586
18	7,548
19	7,510
20	7,472
21	7,435
22	7,398
23	7,361
24	7,324
25	7,287

The estimated lifespan of the Project is 25 years.

2.5.2 Required Permits and Approvals

This IS/MND is intended to be used by the PWD Board of Directors when considering the Project. To support its decision on the Project, the Board must approve the MND and must also adopt a mitigation monitoring and reporting program to ensure compliance with mitigation measures during Project implementation. The IS/MND is also intended to be used by responsible agencies that have review and permit authority over the Project. Agencies with responsibility for permit approval of certain Project elements include:

- A Dust Control Plan to be reviewed and approved by the Antelope Valley Air Quality Management District (AVAQMD)
- State Water Resources Control Board Notice of Intent to obtain coverage under California General Construction Activity Stormwater National Pollutant Discharge Elimination System (NPDES) permit requiring preparation of a Stormwater Pollution Prevention Plan

3. ENVIRONMENTAL CHECKLIST FORM

1. **Project title:** Solar Energy Project
2. **Lead agency name and address:** Palmdale Water District
2029 E Ave Q
Palmdale, CA 93550
3. **Contact person and phone number:** Adam Ly
Assistant General Manager
661-456-1062
4. **Project locations:**
 - 2029 East Avenue Q, Palmdale, CA
 - East Avenue S & Sierra Highway, Palmdale, CA
5. **Project sponsor's name and address:** Palmdale Water District
2029 E Ave Q
Palmdale, CA 93550
6. **General plan designation:** Public Facility, Single Family Residential
7. **Zoning:** Public Facility Single Family Residential

8. Description of project: PWD is proposing to install solar facilities at the District's Headquarters (HQ Site) located at 2029 East Avenue Q, Palmdale, CA and solar facilities and battery energy storage system at the 6 MG Tank Site (Tank Site) located at East Avenue S & Sierra Highway, Palmdale, CA). The two combined sites of the Project are located on approximately 34 acres and will generate approximately 8,218 MWh. The District is undertaking this Project to mitigate rising energy costs and provide an alternative energy source for District operations.

9. Surrounding land uses and setting: According to the City of Palmdale General Plan Map, the HQ site is designated Public Facility, and the Tank Site is designated Single Family Residential. Surrounding land uses for the HQ Site include vacant and/or commercial/industrial. The Tank Site is located adjacent to a residential development to the west. Other surrounding land uses include transportation and commercial/industrial to the north, south, and east.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

- A Dust Control Plan to be reviewed and approved by the AVAQMD
- State Water Resources Control Board Notice of Intent to obtain coverage under the California General Construction Activity Stormwater NPDES permit requiring preparation of a Stormwater Pollution Prevention Plan

11. Have California Native American tribes traditionally and culturally affiliated with the Project area requested consultation pursuant to Public Resources Code section 2180.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

To date, no requests for consultation have been received pursuant to Public Resources Code section 2180.3.1.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Transportation |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Land Use / Planning | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities / Service Systems |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Noise | <input type="checkbox"/> Wildfire |
| <input checked="" type="checkbox"/> Geology / Soils | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Mandatory Findings of Significance |

Determination:

On the basis of this initial evaluation:

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



Signature
 Adam Ly, Assistant General Manager

Printed Name

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Date
 Palmdale Water District

For

Environmental Analysis

The environmental impact analysis for each resource defines the criteria used to judge whether an impact is significant based on the CEQA Initial Study Checklist and regulatory agency standards. Impacts that exceed identified threshold levels are considered significant. In describing the significance of impacts, the following categories of significance are used and are based on the best professional judgment of the preparers of the Initial Study:

- **No Impact:** An effect that would have no impact, or would have a positive impact on the environment, such as reducing an existing environmental problem.
- **Less than Significant:** An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures.
- **Less than Significant with Mitigation:** An impact is potentially significant but can be reduced to below the threshold level (to less than significant) given reasonable and available mitigation measures.
- **Potentially Significant:** An impact that would cause substantial, or potentially substantial, impacts above the threshold level. Such an impact requires further evaluation and would trigger the preparation of an Environmental Impact Report (EIR) for the project.

3.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

No scenic vistas are present on the Project sites. No impact would occur.

Mitigation Measures: None required or recommended.

b) *Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The California Department of Transportation (Caltrans) administers the California Scenic Highway Program (Streets and Highways Code, Section 260 et seq) to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. There are no officially designated California scenic highways or roadways in the Project area (Caltrans 2019). The California State Route 14 and California State Route 138 that run near the Project site are not designated scenic highways (Caltrans 2019). There are no scenic highways in the vicinity of the Project site and thus there would be no impact.

Mitigation Measures: None required or recommended.

c) *Would the Project in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from*

publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

The proposed Projects are located on public facility land near residential neighborhoods and commercial/industrial areas. The Projects would have some change to the aesthetic of the area; however, it would not conflict with applicable zoning and other regulations governing scenic quality. Therefore, the Project would have a less than significant impact.

Mitigation Measures: None required or recommended.

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

The Project would not require nighttime lighting. According to a glare analysis conducted by Burns and McDonnell Consultants Inc for the City of Palmdale solar projects of similar size and scale have the potential to generate glare and glint that may cause impacts to public and pilots. The City of Palmdale’s glare analysis identified these potential impacts, by including a series of observational points at nearby intersections, adjacent roads and the approach paths and airport traffic control for the adjacent U.S. Air Force (USAF) Plant 42 airport. Using a Solar Glare Hazard Analysis Tool developed by Sandia National Laboratories plus guidelines provided by the Federal Aviation Administration, the study concluded that no glare or glint hazards would occur from the proposed solar project (City of Palmdale, 2020). Given the proximity and similarity of the proposed Project to studied conditions, the proposed Project would not add a new source of substantial light or glare. Any potential impacts would be less than significant.

Mitigation Measures: None required or recommended.

3.2 Agriculture and Forestry Resources

Would the Project:	Potentially Significant <u>Impact</u>	Less Than Significant with Mitigation <u>Incorporated</u>	Less Than Significant <u>Impact</u>	<u>No Impact</u>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Discussion

a-e) Would the Project a) convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use; b) conflict with existing zoning for agricultural use, or a Williamson Act contract?; c) conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)); d) result in the loss of forest land or conversion of forest land to non-forest use?; or, e) involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The HQ Site is located on a site that is designated by the Farmland Mapping and Monitoring Program as Urban and Built Up Land. The Tank Site is designated by the Farmland Mapping and Monitoring Program as Other Land, which are areas that do not sustain farmland (California Department of Conservation, 2018). Additionally, there are no designated Williamson Act lands at either site. There is no farmland or forest land at the Project site, thus there would be no impact.

Mitigation Measures: None required or recommended.

3.3 Air Quality

Would the Project:	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non- attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors or adversely affecting a substantial number of people)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

The Project site is within the portion of Los Angeles County that lies in the Mojave Desert Air Basin, under the jurisdiction of the AVAQMD. The AVAQMD regulates air quality through its permit authority over most

types of stationary emission sources and through its planning and review process. Applicable AVAQMD rules include, but are not limited to, those presented in **Table 3-1**.

Table 3-1: Applicable AVAQMD Rules

Rule/Regulation	Title
401	Visible Emissions
402	Nuisance
403	Fugitive Dust
404	Particulate Matter – Concentration

Rule 403 requires that a Dust Control Plan be prepared for review and approval by the AVAQMD Air Pollution Control Officer (APCO) prior to the start of construction activities. A Dust Control Plan would apply to the proposed Project because it would disturb more than five acres of surface area during construction. PWD will prepare the Dust Control Plan, which will detail how dust generated during construction will be controlled.

In addition, the proposed Project would comply with existing applicable state regulations, including the California Air Resources Board (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulation (the Off-Road Regulation), which applies to all self-propelled off-road diesel vehicles 25 horsepower or greater used in California and most two-engine vehicles (except on-road two-engine sweepers). The Off-Road Regulation requires construction fleets to reduce their emissions by retiring older vehicles and replacing the retired vehicles with newer vehicles, repowering older engines, or installing verified diesel emission control strategies in older engines; and by restricting the addition of older vehicles to fleets (CARB, 2022).

a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The federal Clean Air Act requires states to develop State Implementation Plans (SIPs) to state how they will attain or maintain the National Ambient Air Quality Standards (NAAQS). SIPs are a compilation of new and previously approved plans, programs, district rules, state regulations and federal controls. States and local air quality management agencies prepare SIPs for approval by the US Environmental Protection Agency (USEPA). SIPs are, in part, based on regional population, housing, and employment projections reflected in local general plans.

The Project sites are located in areas that are owned by PWD and zoned for public facilities, in the case of the HQ site, and single family residential, in the case of the Tank site. Small-scale solar is permitted on sites designated for public facilities and single family residential (City of Palmdale municipal code chapter 17.76.010 Land Use Matrix). Thus, the proposed Project would not conflict with the regional projections that form the basis of the SIP. In addition, the Project would comply with all applicable CARB and AVAQMD rules and regulations. Because the Project would be consistent with the growth forecast in the local land use planning documents, it is considered consistent with the State SIP. Therefore, the Project would not conflict with or obstruct implementation of the attainment plan.

Mitigation Measures: None required or recommended.

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

Criteria air pollutants are the following six air pollutants for which the USEPA and the CARB have set ambient air standards: ozone (O₃), particle pollution (i.e., respirable particulate matter less than 10 microns in diameter [PM₁₀] and respirable particulate matter less than 2.5 microns in diameter [PM_{2.5}]), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead (Pb). The portion of Los Angeles County that is within the Mojave Desert Air Basin is designated attainment/ unclassified for all federal NAAQS except O₃ and is designated attainment/ unclassified for all California Ambient Air Quality Standards (CAAQS), except O₃ and PM₁₀ (CARB, 2017). This means that ambient concentrations of O₃ and PM₁₀ at the Project site exceed levels determined by the USEPA and CARB to be acceptable to protect public health. AVAQMD has established mass daily and annual significance thresholds to assist lead agencies in determining whether or not a project's activities would result in a cumulatively considerable net increase in any criteria pollutant (AVAQMD, 2016). Any project that would result in emissions that exceed the evaluation criteria is significant.

The proposed Project would generate temporary emissions of criteria pollutants O₃, PM₁₀, PM_{2.5}, CO, and SO₂ during its construction stage as a result of the use of internal combustion engines for heavy construction equipment, worker and vendor vehicle trips, and hauling trips. However, activities and emissions occurring during construction would stop once construction of the proposed Project is completed.

Operation emissions would be minimal and result from normal preventative maintenance and routine inspections. Preventative maintenance would consist of a vehicle trip and power washing occurring twice monthly. Routine inspections would occur twice a month.

This Project assumes air emissions would be similar to those calculated for the City of Palmdale's solar energy generating facility, a project of comparable size and scope. In 2020, Tetra Tech, Inc. completed an IS/MND for the City of Palmdale proposing to construct, operate, and eventually decommission a 25-megawatt (MW) solar project on a 140-acre site approximately 2.5 miles away from the proposed Project. Air emissions resulting from construction were calculated for the City of Palmdale's project based on a scenario where each equipment piece in each phase runs simultaneously. This approach assumed maximum daily operating time for all equipment assigned in each construction phase (e.g., Site Preparation, Grading, and Paving). Construction emissions were calculated using the California Emissions Estimator Model (CalEEMod). CalEEMod is designed to take information such as project size; construction length; vehicle and equipment types; number of vehicle trips and trip lengths; and equipment operating hours to calculate emissions of criteria air pollutants and GHGs. Emission calculations factored dust control measures such as those prescribed in AVAQMD Rule 403 and off-road vehicles using on average Tier 3 engines to comply with existing CARB regulations to phase out older, more polluting construction equipment engines (e.g., CARB Off-Road Regulation). Operational emissions are estimated based on two vendor trips per month for panel washing and or maintenance purposes and two inspection trips per month. Operational emissions were estimated using CalEEMod.

CalEEMod calculated air emission results for the City of Palmdale's solar energy generating facility are summarized in **Table 3-2** and compared to the AVAQMD significance thresholds.

Table 3-2: Project Construction Emissions of Criteria Pollutants for Representative Project

Project Phase	VOCs	NO_x	CO	SO_x	PM₁₀	PM_{2.5}
Construction 2020 Annual (tons)/Daily (lbs)	0.02/3.9	0.20/37.0	0.11/29.4	0.00/0.0	0.10/3.3	0.04/1.8
Construction 2021 Annual (tons)/Daily (lbs)	0.20/5.7	1.60/57.3	1.43/40.8	0.00/0.1	0.35/8.2	0.18/3.4
Operational Emissions Annual (tons)/Daily (lbs)	0.00/0.1	0.04/3.2	0.05/4.2	0.00/0.0	0.00/0.2	0.00/0.2
<i>Threshold of Significance</i> Annual (tons)/ Daily (lbs)	<i>25/137</i>	<i>25/137</i>	<i>100/548</i>	<i>25/137</i>	<i>15/82</i>	<i>12/65</i>
Significant?	No	No	No	No	No	No

Notes:

- lbs - pounds
- NO_x - oxides of nitrogen (nitric oxide and nitrogen dioxide)
- SO_x oxides of sulfur (sulfur dioxide and sulfur trioxide)
- VOC volatile organic compounds

Estimated construction emissions from the City of Palmdale’s project did not exceed the AVAQMD established thresholds. With the single vehicle trip to the facility that would occur once or twice a month, modeled emissions from operation of the facility did not exceed AVAQMD established daily thresholds. Given that the City of Palmdale’s project is representative of the District’s Solar Energy Project, the District’s proposed Project would also not exceed AVAQMD established daily thresholds.

Mitigation Measures: None required or recommended.

c) *Would the Project expose sensitive receptors to substantial pollutant concentrations?*

The proposed Project is not expected to expose sensitive receptors to substantial pollutant concentration during its construction or operation phases. At the HQ Site, the closest sensitive receptor is Tamarisk Elementary School located at 1843 E Ave Q-5, Palmdale, CA 93550, approximately 0.31 miles south of the site. At the Tank Site, the closest sensitive receptor is Tumbleweed Elementary School located at 1100 E Ave R-4, Palmdale, CA 93550, approximately 0.78 miles northeast from the site. During construction, emissions from off-road vehicles would be generated but would be temporary and are not anticipated to impact workers in nearby buildings. Criteria air pollutant emissions from construction equipment would not exceed threshold limits (**Table 3-2**) that are designed to protect public health. Operation of the proposed Project would generate minimal emissions resulting from normal preventative maintenance and routine inspections. Two preventative maintenance trips and two inspection related trips would occur monthly. Therefore, impacts would be less than significant.

Mitigation Measures: None required or recommended.

d) *Would the Project result in other emissions (such as those leading to odors or adversely affecting a substantial number of people?)*

The proposed Project would generate odors resulting from diesel combustion by on-road and off-road vehicles during the construction phase. Odors from construction sources would be significant if they were to become a nuisance pursuant to Rule 402. To become a nuisance, odors resulting from the Project would need to generate multiple valid odor complaints. Construction equipment would emit sulfur compounds, which can have a rotten-egg odor. However, construction emissions would be temporary and would dissipate quickly with distance from the equipment. Furthermore, emissions of SO_x would be well below regional significance thresholds (**Table 3-2**). Therefore, perception of construction related odors are anticipated to be less than significant.

Mitigation Measures: None required or recommended.

3.4 Biological Resources

Would the Project:	Potentially Significant <u>Impact</u>	Less Than Significant with Mitigation <u>Incorporated</u>	Less Than Significant <u>Impact</u>	<u>No Impact</u>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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

To begin assessing the potential impact on special-status species, a list of special-status species previously documented within a 0.25-mile radius of the proposed Project sites was compiled from the California Natural Diversity Database (CNDDDB) (CDFW, 2022). Seven records were included in the CNDDDB results: two mammals, San Joaquin Pocket mouse (*Perognathus inornatus*, listed by the International Union for Conservation of Nature (IUCN) as being of "least concern", and Mohave ground squirrel (*Xerospermophilus mohavensis*, threatened under the California Endangered Species Act (CESA)); two birds, Le Conte's thrasher (*Toxostoma lecontei*, California Department of Fish and Wildlife (CDFW) species of special concern), and Swainson's hawk (*Buteo swainsoni*, threatened under CESA); an insect, Crotch bumble bee (*Bombus crotchii*, IUCN Endangered, NatureServe S1S2); a dicot plant, Horn's milk-vetch (*Astragalus hornii* var. *hornii*, NatureServe T1); and a mollusk, Soledad shoulderband (*Helminthoglypta fontiphila*, NatureServe G1,S1).

In addition to the CNDDDB, a search of the US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) database was compiled for the two project sites (UWFWS, 2022). The IPaC search results found that two birds, California condor (*Gymnogyps californianus*, IUCN Critically Endangered), and least Bell's vireo (*Vireo bellii pusillus*); one reptile, desert tortoise (*Gopherus agassizii*, IUCN Critically Endangered); and one insect, Monarch butterfly (*Danaus plexippus*, IUCN Endangered).

The Project site, which consists of vacant, disturbed land, does not contain optimal suitable habitat for special-status wildlife species, due to the existing development in the surrounding area, lack of native vegetation, and regular disturbance. However, a lack of quality habitat does not preclude species presence. It is assumed that the marginal habitat on the Project sites may support San Joaquin Pocket mouse, Mohave ground squirrel, Crotch bumble bee, and Monarch butterfly and **Mitigation Measure BIO-1** would be required to confirm species presence or absence of these species. Mitigation Measure BIO-1 would also identify Project avoidance areas where feasible if species are found. If species are identified during reconnaissance surveys **Mitigation Measure BIO-2** would require a pre-construction clearance survey and implementation of a Worker Environmental Awareness Program (WEAP) prior to construction to address potential impacts. The pre-construction survey and WEAP required by **Mitigation Measure BIO-2** would mitigate potential impacts to the sensitive insect, reptile and mammal species that have the potential to occur at the Project sites.

Additionally, birds have the potential to nest near the Project site in or on trees, other ornamental vegetation, and buildings. Nesting bird species are protected by California Fish and Game Code (CFGC) sections 3503 and 3503.5, and the Migratory Bird Treaty Act. According to the IPaC search results (USFWS 2022), six birds of conservation concern have the potential to be affected by activities at the Project sites: California thrasher (*Toxostoma redivivum*), Clark's grebe (*Aechmophorus clarkia*), Costa's hummingbird (*Calypte costae*), Lawrence's goldfinch (*Carduelis lawrencei*), tricolored blackbird (*Agelaius tricolor*), and western grebe (*aechmophorus occidentalis*).

If initial ground disturbance and vegetation/tree trimming or removal is required during the nesting bird season (typically January 16 to September 30), the Project may impact nesting birds through injury, mortality, or disruption of normal adult behaviors resulting in the abandonment or harm to eggs and nestlings. Construction occurring within the vicinity of nesting birds may also indirectly impact individuals

with construction noise, dust, and vibration from equipment. PWD would implement **Mitigation Measure BIO-3** to comply with CFGC 3503, CFGC 3503.5, and the Migratory Bird Treaty Act. These measures include a pre-construction survey for nesting birds and measures to avoid and monitor bird nests, if found, until construction is complete.

The Project would adhere to mitigation measures in order to avoid disturbance to nesting birds and other sensitive species, and the Project's impact on special-status species during construction would be less than significant. After construction is complete, Project operations at the site would involve regular visits to the site by PWD staff, but species habitat would be able to persist within the Project boundaries and there would be no new long-term operational activities that would directly impact on special status species. Therefore, Impacts to special status species are less than significant with mitigation incorporated.

Mitigation Measures: None required or recommended.

Mitigation Measure BIO-1: Reconnaissance Biological Survey and Identifying Avoidance Areas

Reconnaissance level surveys and habitat assessment shall be conducted during Project design prior to construction to assess and minimize impacts on potential for sensitive status species. The survey shall be conducted by a biological professional. The survey shall denote where species are present and adequate habitat exists. The survey shall evaluate the marginal habitat on the Project sites for the presence or absence of Joshua tree, California juniper, nesting birds, burrowing owl, San Joaquin Pocket mouse, Mohave ground squirrel, Crotch bumble bee, and Monarch butterfly. If present, the Project design shall avoid the species to the maximum extent feasible.

Mitigation Measure BIO-2: San Joaquin Pocket mouse, Mohave ground squirrel, Crotch bumble bee, and Monarch butterfly WEAP Training and Pre-construction Survey

Because there is marginal habitat present within the Project area to support the presence of San Joaquin Pocket mouse, Mohave ground squirrel, Crotch bumble bee, and Monarch butterfly, a pre-construction survey prior to ground disturbance activity shall be carried out by a qualified biologist. WEAP training shall also be conducted prior to any ground disturbance activities, to address the potential for these species to occur within the Project area. The training will address BMPs prior to, during, and after construction, including appropriate protocol to follow if any special-status species are identified. All participants in construction activities will be required to attend this training prior to ground disturbance, and a signature from each participant will be required at the conclusion of the training. If species are identified during the pre-construction surveys, the qualified biological professional shall implement CDFW guidance for avoiding, protecting, and mitigating impacts.

Mitigation Measure BIO-3: Nesting and Migratory Birds Avoidance

If Project grading/construction activities are scheduled to occur during the nesting season for breeding birds (typically January 15th through September 30th), the following measures shall be implemented:

- An Avoidance Plan for nesting birds will be prepared by a qualified biologist that would include measures that are effective, enforceable and feasible to avoid impacts to nesting birds. The Avoidance Plan would be fully developed prior to implementing Project-related ground disturbance activities that includes site preparation, equipment staging and mobilization.

- Within seven days prior to commencement of grading/construction activities, a qualified biologist shall perform a pre-construction survey of all proposed work limits and within 500 feet of the proposed work limits.
- If active avian nest(s) of non-special status species are discovered within or 500 feet from the work limits, a buffer shall be delineated around the active nest(s) measuring 300 feet for passerines and 500 feet for raptors. A qualified biologist shall monitor the nest(s) weekly after commencement of construction mobilization to ensure that nesting behavior is not adversely affected by such activities.
- If the qualified biologist determines that nesting behavior of non-special-status species is adversely affected by grading/construction activities, then a noise mitigation program shall be implemented in consultation with CDFW, to allow such activities to proceed. The noise mitigation program will include the following elements: within 10 calendar days prior to the start of construction activities (including removal of vegetation), a qualified biologist conducts a preconstruction survey to determine the presence or absence of nesting birds on the proposed area of disturbance; if nesting birds are detected, the biologist prepares a letter report and mitigation plan in conformance with applicable federal and State laws (e.g., appropriate follow-up surveys, monitoring schedules, construction and noise barriers/buffers) to ensure that take of birds or eggs or disturbance of breeding activities is avoided; the report/mitigation plan is submitted to the City for review/approval and implemented to the satisfaction of the City; and the biologist verifies in a report to the City that all measures identified in the mitigation plan are in place prior to and/or during construction. Once the young have fledged and left the nest(s), then grading/construction activities may proceed within 300 feet (500 feet for raptor species) of the fledged nest(s).

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

According to the IPaC database (USFWS 2022), no federal critical habitats were returned in the IPaC results for the proposed Project sites. According to the California Office of Planning and Research SiteCheck tool (which identifies habitat and natural communities protected by CDFW), no sensitive plant communities or special habitats are present at the Project site or adjacent areas within 0.25 mile (OPR 2022). There is no riparian habitat present within the Project area, and no sensitive plant communities occur within the Project site. Therefore, there would be no impact on sensitive vegetation communities.

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

According to the IPaC database (USFWS 2022), the Project locations do not intersect any mapped wetlands. The Project site does not contain seasonal wetlands and other areas that may be considered to be under the jurisdiction of the U.S. Army Corps of Engineers. Therefore, potential for impacts to federally or state protected wetlands would be less than significant.

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

The Project site could be used by nesting migratory birds. Furthermore, although it was not present in the CNDDDB or IPaC records results, the vacant land at the Project sites could provide suitable nesting habitat for burrowing owl (*Athene cunicularia*), a listed CDFW Species of Special Concern. As a result, disturbance of the sites during the nesting season may cause a significant impact. If construction activities were to occur during the typical nesting bird season, a nesting bird survey should be conducted. Avoidance plans for nesting birds through implementation of **Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, and BIO-5** would reduce impacts to migratory wildlife species to a less than significant.

Mitigation Measures:

See Mitigation Measure BIO-1 through 3, above

Mitigation Measure BIO-4: Burrowing Owl Avoidance Plan

An Avoidance Plan for burrowing owl will be prepared by a biological professional that will include measures that are effective, enforceable and feasible to avoid impacts to burrowing owl. The Avoidance Plan will be fully developed prior to implementing Project-related ground disturbance activities (e.g., site preparation, equipment staging and mobilization). A pre-construction presence/ absence survey for burrowing owl shall be conducted within 30 days prior to any on-site ground disturbing activity. The survey shall be conducted pursuant to the recommendations and guidelines established by the CDFW. In the event these species are not identified within the Project disturbance limits, no further mitigation is required. If, during the pre-construction survey, the burrowing owl is found to occupy the site, Mitigation Measure BIO-2 shall be required.

Mitigation Measure BIO-5: Burrowing Owl Relocation

If burrowing owls are identified during the survey period, PWD shall take the following actions to offset impacts prior to ground disturbance. Active nests within the areas scheduled for disturbance or degradation shall be avoided from February 1 through September 15, and a minimum 250-foot buffer shall be provided until fledging has occurred. Following fledging, owls may be passively relocated by a qualified biologist. If impacts on occupied burrows in the non-nesting period are unavoidable, on-site passive relocation techniques may be used if approved by the CDFW, to encourage owls to move to alternate burrows outside of the impact areas.

If relocation of the owls is approved for the site by the CDFW, PWD shall hire a qualified biologist to prepare a plan for relocating the owls to a suitable site. The relocation plan shall include all of the following:

- The location of the nest and owls proposed for relocation;
- The number of owls involved and the time of the year when the relocation is proposed to take place;
- The name and credentials of the biologist who will be retained to supervise the relocation;

- The proposed method of capture and transport for the owls to the new site.
- A description of the site preparation at the relocation site (e.g. enhancement of existing burrows, creation of artificial burrow, one-time or long-term vegetation control); and
- A description of efforts and funding support proposed to monitor the relocation.

e) *Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The Project sites may contain creosote bush scrub with some areas of undisturbed creosote scrub with scattered Joshua trees (Tetra Tech 2020). The Project may require the removal of Joshua trees, which requires compliance with CESA for western Joshua tree and City of Palmdale Development Code Chapter 14.04 for Joshua trees and native vegetation preservation. Implementation of **Mitigation Measures BIO-6, BIO-7, and BIO-8** would reduce impacts to a less than significant level.

Mitigation Measures:

Mitigation Measure BIO-6: Western Joshua Tree Avoidance

If “take” or adverse impacts to western Joshua tree cannot be avoided during Project implementation, consultation with the CDFW will be undertaken and a CESA Incidental Take Permit (ITP) (pursuant to Fish & Game Code, § 2080 et seq.) will be sought. During the consultation process, if take of western Joshua tree is necessary for the Project to be constructed, compensatory mitigation will be required in the ITP and may include in-kind and/or in-lieu mitigations as per Fish and Game Code 2081 to offset impacts. The ITP will also specify minimization and avoidance measures and fully mitigate any impacts to western Joshua tree. No take of western Joshua tree will occur until the ITP has been issued to and accepted by the applicant. In addition, PWD will not approve the Project until the ITP has been issued and required mitigation completed.

Mitigation Measure BIO-7: Native Desert Vegetation Plan

PWD shall have a native desert vegetation plan prepared by a desert native plant specialist. The plan shall, at minimum, include the following:

- A written report and a site plan which depicts the location of each Joshua tree and California juniper, discusses their age and health, identifies and locates all trees and shrubs which can be saved in place or relocated.
- A site landscaping plan showing the proposed location of those Joshua trees, California junipers, and any other native desert vegetation that will remain on-site.
- A long-term maintenance program for any desert vegetation preserved on the site. The minimum term of any maintenance program shall be two growing seasons, unless a shorter length of time is approved by CDFW.

Mitigation Measure BIO-8: Joshua Tree Transplanting

Two years following Joshua tree transplanting, a written report shall be submitted to PWD. This report shall indicate the number of Joshua trees transplanted, the date(s) of transplanting, the method of transplanting, dates Joshua trees are watered, and the number of Joshua trees surviving.

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

The Project area is not located within or near lands that are governed by a Habitat Conservation Plan, a natural community conservation plan or other approved, local, regional or state habitat conservation plan. Therefore, no impacts would occur.

Mitigation Measures: None required or recommended.

3.5 Cultural Resources

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a) *Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

The Palmdale area was largely undeveloped prior to the completion of the Southern Pacific Railroad through the Antelope Valley in 1876. In 1886, farming families predominantly from the Midwest settled in the Antelope Valley. When drought in the valley's desert climate rendered many agricultural homesteads unviable, many settlers relocated closer to the Southern Pacific Railroad Station in the present-day location of Palmdale's civic center. The completion of the Los Angeles Aqueduct in 1914 brought irrigation to the Antelope Valley, allowing for the cultivation of pears, apples, and alfalfa. Palmdale remained primarily an agricultural community until the growth of the aerospace industry during World War II. Palmdale became a center of the U.S. aerospace industry due to its proximity to Edwards Airforce Base, and the establishment of U.S. Air Force Plant 42 in 1953 (Rincon Consultants, 2022).

Per the City of Palmdale General Plan EIR, there is a possibility that during Project activities such as grubbing and grading or setting foundations, buried historical resources may be discovered (Rincon Consultants, 2022).

In the event of an inadvertent discovery of historical resources during construction, Mitigation Measures **CUL-1, CUL-2, and CUL-3** would be implemented to provide steps for mitigating impacts to a previously undiscovered resource. These measures would reduce the potential impacts to less than significant.

Mitigation Measures:

Mitigation Measure CUL-1: Confirm and Monitor for Cultural Resources

Prior to final design, PWD shall conduct a record search and field survey to confirm assumed site sensitivity and identify any resources to be avoided. If resources are identified on site, they shall be avoided or treated following Secretary of the Interior standards. If the qualified archaeologist determines the site to be highly sensitive with a high likelihood of discovering buried or previously unidentified objects, a qualified archaeological monitor shall be present during ground disturbing activities in that area such as grading, trenching, or excavation. Archeological monitoring shall be performed during initial ground disturbance only (not entire construction timeframe) under the direction of an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archeology. Archeological monitoring may be reduced or halted at the discretion of the monitors, in consultation with PWD.

In the event that cultural resources are discovered during Project construction activities, all work shall cease and a qualified archaeologist meeting Secretary of Interior standards shall assess the find. A qualified archaeologist will make recommendation if work can continue or if a buffer can be established for work to continue. If the tribal cultural resources are encountered, the San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) and the Fernandeño Tataviam Band of Mission Indians (FTBMI) shall be contacted, as detailed within Mitigation Measures TCR-1, regarding any precontact and/or post-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

Mitigation Measure CUL-2: Develop a Monitoring and Treatment Plan

If significant pre-contact and/or post-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to SMBMI and FTBMI for review and comment, as detailed within **Mitigation Measure TCR-1**. The archaeologist shall monitor the remainder of the Project and implement the Plan accordingly.

Mitigation Measure CUL-3: Unintended Discovery of Human Remains

If human remains or funerary objects are encountered during any activities associated with the Project, work in the immediate vicinity (within a 100- foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the Project.

b) *Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

There is a possibility that during Project activities, buried cultural resources may be discovered. If this occurs, PWD is required to comply with City of Palmdale regulations and California Public Resources Code Section

21083.2. In the event that cultural resources are encountered during the course of construction activities, all work must cease until a qualified archaeologist determines the proper disposition of the resource.

In the event of an inadvertent discovery of cultural resources during construction, **Mitigation Measures CUL-1, CUL-2, and CUL-3** would be implemented to provide steps for mitigating impacts to a previously undiscovered resource. These measures would reduce the potential for impacts to less than significant.

Mitigation Measures:

See Mitigation Measures CUL-1, CUL-2, and CUL-3, above

c) *Would the Project disturb any human remains, including those interred outside of formal cemeteries?*

The discovery of human remains is always a possibility during ground-disturbing activities.. In the event that previously unknown human remains are discovered during construction of the Project, implementation of **Mitigation Measure TCR-2**, would reduce impacts to less than significant.

Mitigation Measures:

See Mitigation Measure TCR-2, in Section 3.18, below

3.6 Energy

Would the Project:	Potentially Significant <u>Impact</u>	Less Than Significant with Mitigation <u>Incorporated</u>	Less Than Significant <u>Impact</u>	<u>No Impact</u>
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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

Energy consumption during construction would have a nominal effect on the local and regional energy supplies. There are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Construction would be temporary and in compliance with AVAQMD regulations, and equipment would be maintained to optimal performance to reduce use of fuels. Once operational, the Project would be generating clean electricity, thereby reducing the use of fossil fuels for electricity in the area. Therefore, the Project would have a less than significant impact.

Mitigation Measures: None required or recommended.

b) *Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

The proposed Project is an alternative energy project that is consistent with the City of Palmdale’s Energy Action Plan (EAP). The proposed alternative energy Project would assist the City of Palmdale in meeting its green energy goals. Therefore, no impacts would occur.

Mitigation Measures: None required or recommended.

3.7 Geology and Soils

Would the Project:	Potentially Significant <u>Impact</u>	Less Than Significant with Mitigation <u>Incorporated</u>	Less Than Significant <u>Impact</u>	<u>No Impact</u>
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineate 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

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

The San Andreas fault is located less than a mile southwest of the Tank Site, and less than three miles southwest of the HQ Site. Rupture of the San Andreas within the City of Palmdale area would cause impacts to some degree to the region including the Project. According to the California Department of Conservation's Earthquake Zones of Required Investigation interactive map (2022) that incorporates the Alquist-Priolo Earthquake Fault Zoning data, the Project sites are not within known earthquake fault zones. Therefore, the Project would have no impact.

Mitigation Measures: None required or recommended.

- ii) *Strong seismic ground shaking?*

The Project area is located in a region that is subject to seismic events. The nearest fault is a portion of the San Andreas Fault located approximately one mile southwest of the Tank Site, and less than three miles southwest of the HQ Site. The solar facility would be unmanned and, therefore, a rupture of the San Andreas fault in the City of Palmdale planning area would not likely expose people to seismic rupture hazards as a result of the Project. A less than significant impact would occur.

Mitigation Measures: None required or recommended.

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

The highest potential for liquefaction occurs in saturated, loosely consolidated sands and silts below the water table when the water table is within approximately 50 feet of the surface. The HQ site and the Tank Site parcel where the solar panels are proposed are not within liquefaction zones (Department of Conservation 2022). However, the parcel with the existing tank site is partially in a liquefaction zone. All new structures and facilities built on this parcel, such as the battery storage, would be built in accordance with the California Building Code and current design standards that prevent substantial adverse effects in the event of seismic-related ground failure. Additionally, the nature of the Project presents a low risk of loss, injury, or death if seismic-related ground failure were to occur. Therefore, no impacts would occur.

Mitigation Measures: None required or recommended.

- iv) *Landslides?*

The topographic relief at the site is relatively flat. Site preparation for the Project will create a flat surface for the solar panels. There will be no slopes that may fail in a seismic event and cause adverse effects from a landslide. The potential for an earthquake-induced landslide at the Project area is very low. Therefore, no impacts would occur.

Mitigation Measures: None required or recommended.

b) *Would the Project result in substantial soil erosion or the loss of topsoil?*

Site preparation would require grubbing and clearing of all vegetation present at the site. This would expose soils to erosion from wind and rain events. As more than one acre will be graded, the Project would be required to comply with the State of California NPDES General Permit for Discharges of Storm Water Associated with Construction Activity. A site-specific Storm Water Pollution Prevention Plan (SWPPP) would also need to be developed and implemented. The SWPPP will identify BMPs that would control on-site and off-site erosion from storm events and wind. The SWPPP will also identify BMPs for accidental spills of hazardous materials. Oversight by PWD will ensure compliance with any permit-related measures to control erosion generated by the Project. Therefore, a less than significant impact would occur.

Mitigation Measures: None required or recommended.

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

Lateral spreading occurs when large blocks of intact, nonliquefied soil move down slope on a liquefied soil layer. Lateral spreading is often a regional event. For lateral spreading to occur, the liquefiable soil zone must be unconstrained laterally and free to move along sloping ground. As stated earlier, the sites do not have the potential for liquefaction resulting in a low potential for lateral spreading at the Project area. The potential for subsidence, liquefaction and collapse are also unlikely. Therefore, a less than significant impact would occur.

Mitigation Measures: None required or recommended.

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

The Tank site is located on Ramona coarse sandy loam soils with 2 to 5 percent slopes. The HQ Site is located on Hanford coarse sandy loam with 0 to 2 percent slopes, Hesperia fine sandy loam with 0 to 2 percent slopes, and Greenfield sandy loam with 0 to 2 percent slopes. All these soil types are well drained and non expansive. Construction of the unmanned solar project will not create a substantial direct or indirect risk to life or property from expansive soils. No impact would occur.

Mitigation Measures: None required or recommended.

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

During construction, portable toilet/wash station facilities would be used by on-site workers. During routine or emergency repairs, portable toilet/wash station facilities would be mobilized to the site, if necessary. No septic system would be included as part of Project construction. Therefore, no impact would occur.

Mitigation Measures: None required or recommended.

f) *Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Paleontological resource evaluations require analysis of geologic maps, existing literature, and an institutional record search. Geologic mapping indicated that the City of Palmdale’s project is entirely underlain by Holocene-age younger alluvium (Qa). While not mapped at the surface, Pleistocene-age older alluvium often occurs beneath Holocene-age younger alluvium at various depths (Paleo Solutions, Inc. 2019).

The Potential Fossil Yield Classification (PFYC) system was applied to the results of the analysis of existing data. Pleistocene-age older alluvium has a moderate paleontological potential (PFYC 3). Holocene-age younger alluvium (Qa) is estimated to be less than 11,000 years old and has a low paleontological potential (PFYC 2), because these deposits are too young to contain in-situ fossils. However, these younger deposits often overlie older geologic units with higher paleontological potential, which may be impacted at depth.

Based on the ground disturbance necessary to complete the Project, there is potential for adverse impacts to scientifically significant paleontological resources within Pleistocene-age older alluvium if encountered in the subsurface beneath the Holocene-age younger alluvium (Qa). With implementation of **Mitigation Measure GEO-1**, impacts would be less than significant.

Mitigation Measures:

Mitigation Measure GEO-1: Previously Undiscovered Paleontological Resources

If paleontological resources are discovered during earthmoving activities, the construction crew would immediately cease work at the discovery. In accordance with Society of Vertebrate Paleontology guidelines (Society of Vertebrate Paleontology 2010), a qualified paleontologist would assess the nature and importance of the find and recommend appropriate salvage, treatment, and future monitoring and mitigation.

3.8 Greenhouse Gas Emissions

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) *Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

GHG emissions are reported as metric tons per year (MT/year) measured as carbon dioxide equivalents (CO₂e). Because every GHG has a different global warming potential, CO₂ is used as the “reference gas” for climate change, and emissions of other GHGs are reported as CO₂e. For example, methane (CH₄) has a global warming potential 21 times greater than CO₂, so emissions of CH₄ are converted into CO₂e for purposes of calculating GHG emissions.

The AVAQMD (AVAQMD, 2016) has established thresholds of GHG emissions (**Table 3-2**) which if exceeded would render a Project as having a significant adverse impact. The proposed Project would create local GHGs during construction and operation activities but not in significant quantities. It would generate small amounts of GHG emissions from vendor vehicle trips associated with periodic cleaning of the solar panels and inspections. However, the proposed solar energy Project would create clean and renewable electricity, displacing GHGs that are produced in the process of generating electricity from fossil fuels and/or coal.

Tetra Tech, Inc. (Tetra Tech, 2020) evaluated the GHG emissions associated with the construction and operation of the City of Palmdale’s solar energy project, a representative project located approximately 2.5 miles away and that is similar in scope and size to the proposed Project. GHG emissions were calculated using CalEEMod and are summarized in **Table 3-3**. Operation emissions were estimated based on two vendor trips per month for the purpose of cleaning and maintaining the panels and two inspection-related trips per month.

Table 3-3: Project Construction and Operation Emissions of GHGs for Representative Project

Project Phase	CO ₂ e Annual (MT)/Daily (lbs)
Project Construction 2020	17/ 4,831
Project Construction 2021	230/ 7,622
Project Operation	8/ 710
<i>Threshold of Significance</i>	<i>100,000/ 548,000</i>
Significant?	No

Notes: • lbs pounds
 • MT metric tons

Additionally, the proposed Project would displace GHG emissions that would otherwise be emitted in the process of generating electricity using traditional measures such as burning of fossil fuels at the power plant level. The construction and operation emissions would be significantly lower than the thresholds, and the Project would displace future GHG emissions, thus the proposed Project would have a less than significant impact and no mitigation would be required.

Mitigation Measures: None required or recommended.

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

The proposed Project would develop renewable energy on land designated for public facilities and single family residential and would not result in an increase of either population or emissions sources inconsistent with what has been planned for in the City of Palmdale’s General Plan (City of Palmdale, 2021). The proposed Project is also consistent with the City of Palmdale’s EAP, which promotes the establishment of large-scale solar facilities to supply regional energy needs. The EAP is consistent with the State of California GHG reduction goals prescribed under Executive Order S-3-05 and AB 32 (City of Palmdale, 2011).

The proposed Project would be consistent with the General Plan, the City of Palmdale’s EAP, and State GHG reduction goals, therefore it would have less than significant impact and no impacts would occur.

Mitigation Measures: None required or recommended.

3.9 Hazards and Hazardous Materials

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

Discussion

a-b) *Would the Project a) create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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?*

During construction, equipment would require small amounts of potentially hazardous materials such as fuels and lubricants on a regular basis. Some of these materials would be transported to the site by permitted vendors who would be required to obtain permits and are subject to inspection to ensure compliance with all relevant state and federal regulations governing the transportation of hazardous materials. Standard BMPs for storage and minor spills or leaks would be used to ensure any accidental hazardous materials releases will be cleaned up and disposed of as appropriate. When not in use, equipment will be parked in identified parking areas to prevent accidental leaks from entering the drainages. Therefore, impacts would be less than significant.

Mitigation Measures: None required or recommended.

c) *Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The Project area is not within a quarter mile of an existing school and the proposed Project would not be a source of toxic air emissions. The nearest school to the HQ Site is Tamarisk Elementary School which is approximately 0.31 miles south, and the nearest school to the Tank Site is Tumbleweed Elementary School which is approximately 0.78 miles northeast from the site. Therefore, no impact would occur.

Mitigation Measures: None required or recommended.

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

A search of the EnviroStor database maintained by the California Department of Toxic Substances Control (DTSC) and the GeoTracker database maintained by the Regional Water Quality Control Board (RWQCB) for the HQ Site (2029 E. Avenue Q, Palmdale, CA 93550) and Tank Site (641 E. Avenue S, Palmdale, CA 93550) was completed. Neither database has records for the proposed Project area. Therefore, impacts would be less than significant.

Mitigation Measures: None required or recommended.

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

There are no public or private airports located in the vicinity of the Project sites. The sites are not located within an airport land use plan or within two miles of a public or private airport. There would no impact.

Mitigation Measures: None required or recommended.

f) *Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

During construction, the proposed Project would generate additional traffic associated with workers mobilizing daily to the Project site. Equipment would be transported to the Project site. Traffic generated during construction is not expected to block the roadways. Once constructed, with the exception of workers traveling to the Project site to conduct routine and/or emergency repairs, no traffic to the site would occur. The proposed Project would be an unmanned solar facility and would not interfere with any adopted emergency response plan or emergency evacuation plan. Therefore, impacts would be less than significant.

Mitigation Measures: None required or recommended.

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

The Project area is not associated with a wildland area. Once constructed, the solar facility would be maintained weed free to reduce risks from a wildfire. In the event of a wildfire, there would be a low risk for injury, or death to workers because it would be an unmanned facility. Therefore, impacts would be less than significant.

Mitigation Measures: None required or recommended.

3.10 Hydrology and Water Quality

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a) *Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

During construction, BMPs identified in a Project-specific SWPPP would be used to control any stormwater flow generated on site. During site clearance and grading, water would be used for dust suppression. To prevent violations of water quality standards, the site would be graded to ensure no impacts to the existing drainage. Therefore, impacts would be less than significant.

Mitigation Measures: None required or recommended.

- b) *Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?*

Water would be used during site grubbing and grading for dust suppression. PWD is the water purveyor for the Project site. PWD utilizes groundwater from the Antelope Valley Groundwater Basin and surface water from either the SWP or the Littlerock Reservoir (Palmdale Water District, 2020). This use would be temporary and would not deplete groundwater supplies or interfere substantially with groundwater recharge that would cause a net deficit in aquifer volume or lowering of the local groundwater table. Once the Project is developed, the site would remain substantially permeable to rain. PWD would comply with City of Palmdale ordinances and regulations related to the construction water use. Once the Project is built, no water would be required. Therefore, no impacts would occur.

Mitigation Measures: None required or recommended.

- c i-iv) *Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows?*

The Project would not result in a change in the local drainage patterns of the Project area. Stormwater flows would remain similar to existing conditions and would follow existing drainage patterns but may be directed to an on-site retention pond for initial storage before being fed into the existing stormwater drainage system. Changes to impervious surface area at the site would be minor and would occur as a result of new equipment at the Project site. All construction activities would be conducted in accordance with BMPs specified in the construction SWPPP to prevent erosion, siltation, and other construction-related pollutants (such as potential leaks from construction equipment). The Project site is not located within a Special Flood Hazard Area as designated by the Federal Emergency Management Agency (FEMA 2021) and would not

create major changes to drainage or impervious surface area at the site; therefore, the Project would not have the potential to impede or redirect flood flows and impacts would be less than significant.

Mitigation Measures: None required or recommended.

d) *Would the Project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?*

The Project sites are not located within a Special Flood Hazard Area as designated by FEMA (FEMA 2022). The Project site is located inland, more than 43 miles northeast of the Pacific Ocean, and is thus not expected to be affected by tsunamis. Based on a review of the City of Palmdale General Plan Exhibit S-6, the Tank Site is located within an inundation area if break occurs in northern 20% of Lake Palmdale. However, in the event of inundation, the Project would not risk release of pollutants. There are no other nearby large water bodies that could subject the site to seiche or mudflows. Therefore, impacts would be less than significant.

Mitigation Measures: None required or recommended.

e) *Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Water would be used as a dust suppressant during site grubbing and grading. This would be a temporary impact. Once the Project is built, no water would be required. Therefore, the proposed Project would not obstruct implementation of a water quality control plan or a sustainable groundwater management plan. Therefore, no impacts would occur.

Mitigation Measures: None required or recommended.

3.11 Land Use and Planning

Would the Project:	Potentially Significant <u>Impact</u>	Less Than Significant with Mitigation <u>Incorporated</u>	Less Than Significant <u>Impact</u>	<u>No Impact</u>
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) *Would the Project physically divide an established community?*

The Project would be constructed entirely within vacant lots and would thus not divide an established community. There would be no impact.

Mitigation Measures: None required or recommended.

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

The City of Palmdale would need to issue a Conditional Use Permit for the Project finding that the Project is consistent with existing land use and zoning and would not conflict with any land use plan, policy or regulation. Therefore, there would be no impact.

Mitigation Measures: None required or recommended.

3.12 Mineral Resources

Would the Project:	Potentially Significant <u>Impact</u>	Less Than Significant with Mitigation <u>Incorporated</u>	Less Than Significant <u>Impact</u>	<u>No Impact</u>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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

The proposed Project area does not contain any mineral resources nor are there any mining activities occurring at the site or in the general vicinity of the site. Review of the City of Palmdale General Plan Exhibits ER-1B and ER-1C shows that the proposed Project area is not within an area containing mineral resources of value to the region or within the Quarry and Reclamation Zone as identified by the City of Palmdale. The proposed Project would not result in a loss of availability of locally important mineral resources. Therefore, no impact would occur.

Mitigation Measures: None required or recommended.

3.13 Noise

Would the Project:	Potentially Significant <u>Impact</u>	Less Than Significant with Mitigation <u>Incorporated</u>	Less Than Significant <u>Impact</u>	<u>No Impact</u>
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Discussion

a-b) Would the Project a) result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, or b) result in the generation of excessive groundborne vibration or groundborne noise levels?

Grubbing and grading of the sites has the potential for temporarily generating construction equipment noise, as does the trenching required to install the distribution line from the solar facility to the SCE electrical grid. In addition, during construction, groundborne vibrations and groundborne noise may be perceived by residents and workers in the area. However, the Tank Site is mostly surrounded by vacant and/ or transportation/ utilities, and the HQ Site is surrounded by industrial/commercial rural areas. There are residences along the west side of the Tank Site that may be exposed to this temporary construction noise; however, there is a wall separating the residences from any noisy activities that would limit the level of noise heard at the residences. The City of Palmdale’s Noise Ordinance prohibits construction noise near residences on Sundays, or any other day after 8:00 p.m. or before 6:30 a.m. The Project is anticipated to be constructed during the daytime on weekdays, however, if weekend or nighttime work is required the Project would obtain an exception from the City Engineer pursuant to Noise Ordinance section 8.28.040. Any groundborne vibration would attenuate prior to reaching sensitive receptors. Although residences are located near the Tank Site, construction would occur during daytime hours, consistent with local noise ordinances, and therefore, would not interrupt sleep. Therefore, no impacts to sensitive receptors from noise or groundborne vibration/ groundborne noise during construction of the Project are likely as, due to the distance and timing, construction ambient noise is not likely to be perceived. Operation of the Project would not generate any appreciable noise. Therefore, impacts would be less than significant

Mitigation Measures: None required or recommended.

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

The Project sites are not in the vicinity of a public or private airstrip; the nearest airport is the Palmdale Regional Airport, located approximately 3 miles northeast of the HQ Site and 5 miles northeast of the Tank Site. There would be no impacts.

Mitigation Measures: None required or recommended.

3.14 Population and Housing

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a-b) *Would the Project a) induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure), or b) displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The proposed Project is an unmanned solar facility. There would be a temporary influx of workers during the construction of the Project that may use hotels for temporary housing. No new homes or business to support the proposed Project would be required. The site is undeveloped and there are no existing people or housing that may be impacted by the Project. Therefore, no impact would occur.

Mitigation Measures: None required or recommended.

3.15 Public Services

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- e) Other public facilities?

Discussion

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

The City of Palmdale is supported by the Los Angeles County Fire Department for fire, rescue, and emergency medical (paramedic) services, as well as fire prevention function. Los Angeles County Fire Station No. 37, located at 38318 9th Street East, is 1.9 miles to the southwest of the HQ Site and 1.5 miles north of the Tank Site, and would serve as the first responder in the event of an emergency. The proposed Project is not likely to cause a fire and increase demand for Fire Department. As a result, the proposed Project would not necessitate the provision of new or physically altered governmental facilities, and the overall need for fire protection services is not expected to substantially increase. Therefore, impacts would be less than significant.

Mitigation Measures: None required or recommended.

- b-e) *Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: police protection, schools, parks, and other public facilities?*

The proposed Project is an unmanned solar facility that would not require an increase in police, schools, parks or other facilities. No additional governmental facilities will be required as a result of Project implementation. Therefore, no impacts would occur.

Mitigation Measures: None required or recommended.

3.16 Recreation

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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

The Project would not increase the use of existing parks or recreational facilities and thus would not result in substantial physical deterioration of facilities. There would be no impact.

Mitigation Measures: None required or recommended.

b) *Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The Project would not increase the use of existing parks or recreational facilities and would not require construction or expansion of new recreational facilities and thus no adverse physical effect on the environment would occur. There would be no impact.

Mitigation Measures: None required or recommended.

3.17 Transportation

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Would the Project result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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

During construction of the Project, there would be a temporary increase in traffic from workers traveling to the site plus equipment and materials being delivered to the site. This minor, temporary increase in traffic to an area that is largely undeveloped would not conflict with the City of Palmdale ordinances that address transportation with the city limits. Therefore, the Project's long-term potential to conflict with circulation planning would be less than significant.

Mitigation Measures: None required or recommended.

b) *Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Senate Bill 32 requires California to reduce GHG emissions below 1990 levels by 2030 and Executive Order B-16-12 provides a target rate of 80 percent below 1990 emissions levels for the transportation sector by 2050. The transportation sector has three means of reducing GHG emissions: increasing vehicle efficiency, reducing fuel carbon content, and reducing the amount of vehicle miles (Office of Planning and Research 2018). CARB has provided a path forward for achieving these emissions reductions from the transportation sector in its 2016 Mobile Source Strategy. CARB determined that it will not be possible to achieve the State’s 2030 and post-2030 emissions goals without reducing Vehicle Miles Traveled (VMT) growth. It has been concluded that to achieve the State’s long-term climate goals, California needs to reduce per capita VMT (Office of Planning and Research 2018). This can occur under CEQA through VMT mitigation. Many agencies use “screening thresholds” to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. PWD has determined to use the Los Angeles County Public Works thresholds of significance for determining if a project specific Transportation Impact Analysis is required (Los Angeles County Public Works 2020). Screening criteria for non-retail project trip generation provides that if the development project does not generate a net increase of 110 or more daily vehicle trips, then further analysis is not required.

According to the IS/MND prepared by Tetra Tech, Inc. for the City of Palmdale for a similar solar energy project approximately 2.5 miles away, construction and operation of the proposed Project of similar scope was expected to generate less than 110 trips per day. The City of Palmdale anticipated a daily average of 42 trips during construction with a maximum number of 92 trips on any given day.

There will be a total of two preventative maintenance and two inspection trips per month during operation of the solar facility for a total of four trips per month during operation. Operational trips associated with the Project would be negligible and limited to occasional maintenance and servicing of the solar system. The estimated daily construction trips are summarized in **Table 3-3**.

Table 3-4: Estimated Daily Trips during Construction for Representative Project

	Daily Average Trips	Maximum Trip Event
Construction Personnel	40	80
Deliveries	2	12
Total	42	92

Mitigation Measures: None required or recommended.

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

The proposed Project is a solar energy facility. Other than access roads for routine and emergency repairs, roads for the traveling project are not part of this project. There would be no impact.

Mitigation Measures: None required or recommended.

d) *Would the Project result in inadequate emergency access?*

The proposed Project would not result in inadequate emergency access. Permanent site access to the Tank Site is planned to use the temporary access routes located at the intersection of 6th St E / E Ave R/ E Ave R 8. Permanent site access to the HQ Site would be determined during final design, but may be available via the PWD headquarters or from 20th St E. These access roads will be included as part of the Project design and can be used by first responders in case of an emergency. These access roads have been designed to accommodate first responders and fire trucks. These roads are rated for the weight of a fire truck. Therefore, no impact would occur.

Mitigation Measures: None required or recommended.

3.18 Tribal Cultural Resources

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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:				
i) 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) 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 Resources Code Section 5024.1, the lead agency shall set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a) *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:

- i) 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
- ii) 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

There are two Native American tribes in the region, the SMBMI and the FTBMI. **Mitigation Measures TRC-1** and **TRC-2** will be implemented to reduce impacts to potential pre-historic resources located within the Project area to a less than significant impact. With implementation of **Mitigation Measures TRC-1** and **TRC-2**, impacts would be less than significant.

Mitigation Measures:

Mitigation Measure TCR -1: Previously Undiscovered Cultural Resources and Monitoring and Treatment Plan

The SMBMI and the FTBMI shall be contacted, as detailed in Mitigation Measure CUL-1, of any pre-contact and/or post-contact cultural resources discovered during Project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with SMBMI and FTBMI, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents SMBMI for the remainder of the Project, should SMBMI elect to place a monitor on-site.

Mitigation Measure TCR -2: Archaeological and Cultural Documentation

Any and all archaeological/cultural documents created as a part of the Project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to SMBMI and FTBMI. The Lead Agency and/or applicant shall, in good faith, consult with SMBMI and FTBMI throughout the life of the Project.

3.19 Utilities and Service Systems

Would the Project:	Potentially Significant <u>Impact</u>	Less Than Significant with Mitigation <u>Incorporated</u>	Less Than Significant <u>Impact</u>	<u>No Impact</u>
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

construction or relocation of which could cause significant environmental effects?

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a-b) Would the Project a) require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects, and b) have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

The proposed Project is an alternative energy project and would not require the relocation or expansion of utilities such as water, wastewater treatment, electrical or natural gas. Stormwater generated on site would be directed nearby stormdrains. Water would be used as dust suppression during construction of the Project and in minor amounts during solar panel cleaning but expansion of water services to the Project will not be required. Other than metered water used for dust suppression, the Project will not require permanent water provisions. Therefore, impacts would be less than significant.

Mitigation Measures: None required or recommended.

c) Would the Project result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

During construction and routine or emergency services at the Project, portable toilets would be brought to the site for the workers and serviced by the portable toilet vendor. The Project does not include a sanitary system so there would be no Project-related impacts to the Palmdale Water Reclamation Plant. No impact would occur.

Mitigation Measures: None required or recommended.

d-e) Would the Project d) generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or, e)

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

During site grubbing and clearance, green waste would be generated and disposed of in the local Class III landfill. Antelope Valley Landfill located at 1200 City Ranch Road, Palmdale, California, is the closest landfill to the Project site. Trash and debris generated during construction of the Project that would also be disposed of at a Class III landfill. Fees for disposing of green waste and non-hazardous waste would be paid by the Project proponent. Once the Project has been constructed, negligible amounts of trash may be generated when maintenance occurs. Any broken solar panels or those that need to be replaced would be either recycled or disposed of as manifested hazardous waste in a Class II or Class I landfill. This would be an infrequent occurrence. The proposed Project would not generate waste that would exceed the capacity of the local trash conveyors or the local landfill. Therefore, impacts would be less than significant.

Mitigation Measures: None required or recommended.

3.20 Wildfire

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a-d) Would the Project a) substantially impair an adopted emergency response plan or emergency evacuation plan; b) due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; c) require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or, d) expose people or structures to significant risks,

including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The Project is located within a Local Responsibility Area and is not designated as a Very High Fire Hazard Severity Zone (Calfire, n.d.). Therefore, the Project would have no impact.

Mitigation Measures: None required or recommended.

3.21 Mandatory Findings of Significance

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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

As described in Section 3.4 Biological Resources, Section 3.5 Cultural Resources, Section 3.7 Geology and Soils, and Section 3.28 Tribal Cultural Resources, once proposed mitigation measures are implemented, the proposed Project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major period of California history or prehistory. Additionally, the Project would not cause substantial degradation of habitat cause a fish or wildlife population to drop below self-sustaining levels nor a plant or animal community to be eliminated. Therefore, impacts would be less than significant.

Mitigation Measures: None required or recommended.

- 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)?*

The proposed Project has the potential to have cumulative impacts to air quality and GHGs. However, as discussed in Section III: Air Quality and Section VIII: Greenhouse Gas Emissions, these impacts would be temporary during construction and would not be significant.

Mitigation Measures: None required or recommended.

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

The proposed Project may have indirect minor short-term effects on human beings during construction. However, in the long term, the Project would have a beneficial impact because the Project would generate clean energy. No substantial adverse effects on human beings would occur. No impacts would occur.

Mitigation Measures: None required or recommended.

4. REFERENCES

- Antelope Valley Air Quality Management District (AVAQMD). 2016. California Environmental Quality Act (CEQA) and Federal Conformity Guidelines. August. Available online at: <https://avaqmd.ca.gov/attainment-status>.
- Burns and McDonnell Consultants, Inc. 2019. ForgeSolar Glare Analysis. July 1, 2019.
- BSK Associates. 2019. Lockheed Martin Palmdale Solar Project. August 15, 2019.
- California Air Resources Board (CARB). 2017. Antelope Valley AQMD Attainment Status. Available online at: <https://avaqmd.ca.gov/attainment-status>.
- California Air Resources Board (CARB). 2022. Overview of Proposed Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation. October 5. Available online at: <https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation>.
- California Department of Conservation's Earthquake Zones of Required Investigation interactive map. 2022. Available at: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>
- California Department of Conservation. Farmland Mapping & Monitoring Program. 2018. Available at: <https://maps.conservation.ca.gov/dlrp/ciff/>
- California Department of Forestry and Fire. N.d Fire Hazard Severity Zones (FHSZ) Viewer Local Responsibility Areas (LRA). Available at: <https://egis.fire.ca.gov/FHSZ/>
- California Office of Planning and Research (OPR). 2022. Site Check (Interactive Online Tool). Available online at: <https://sitecheck.opr.ca.gov>.
- City of Palmdale. 2011. Energy Action Plan. August 3. Available online at: <https://cityofpalmdale.org/DocumentCenter/View/195/Palmdale-Energy-Action-Plan-PEAP-PDF>.
- City of Palmdale. 2019a. City of Palmdale General Plan Land Use Map. Adopted January 25, 1993, amended November 2019. Available online at: <https://cityofpalmdale.org/273/City-Maps>.
- City of Palmdale 2019b. City of Palmdale Zoning Map. Adopted December 14, 1994, amended November 2019. Available online at: <https://cityofpalmdale.org/273/City-Maps>.
- City of Palmdale. 2021. General Plan 2045. September 21. Available online at: <https://www.palmdale2045.org>.
- Palmdale Water District. 2021. 2020 Urban Water Management Plan (UWMP). June 2021. Available at: https://www.palmdalewater.org/wp-content/uploads/2021/10/PWD_Final_2020_UWMP.pdf
- Personal communication with Adam Ly. 2022. Email conversation. September 1, 2022.
- Rincon Consultants, Inc., prepared on behalf of City of Palmdale. 2022. City of Palmdale 2045 General Plan Update Draft Environmental Impact Report SCH#202106094. Available at:

<https://www.cityofpalmdale.org/DocumentCenter/View/11872/Palmdale-General-Plan-Public-Draft-Environmental-Impact-Report-PDF>

Tetra Tech, Inc., prepared on behalf of City of Palmdale. 2020. SPR 20-009, Initial Study/Mitigated Negative Declaration, Palmdale, California.

U.S. Fish and Wildlife Service (USFWS). 2022. IPaC Resource List (unofficial), Available online at: <https://ecos.fws.gov/ipac>.

U.S. Fish and Wildlife Service (USFWS). 2022. National Wetland Inventory Mapper. Available online at: <https://www.fws.gov/wetlands/data/mapper.html>.



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