

# **Notice of Preparation and Initial Study**

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## **E-Group PS Solar Project**

**General Plan Amendment GPA23-000001  
General Plan Amendment GPA24-000001  
Development Code Amendment DCA23-000016  
Rezone REZ23-000001  
Rezone REZ 24-000001  
Conditional Use Permit CUP23-000009  
Development Agreement 23-000001**

**Applicant:**

E-Group PS, LLC  
40764 Winchester Road, Suite 590  
Temecula, CA 92591

**Lead Agency:**

City of Twentynine Palms  
6136 Adobe Road  
Twentynine Palms, CA 92277



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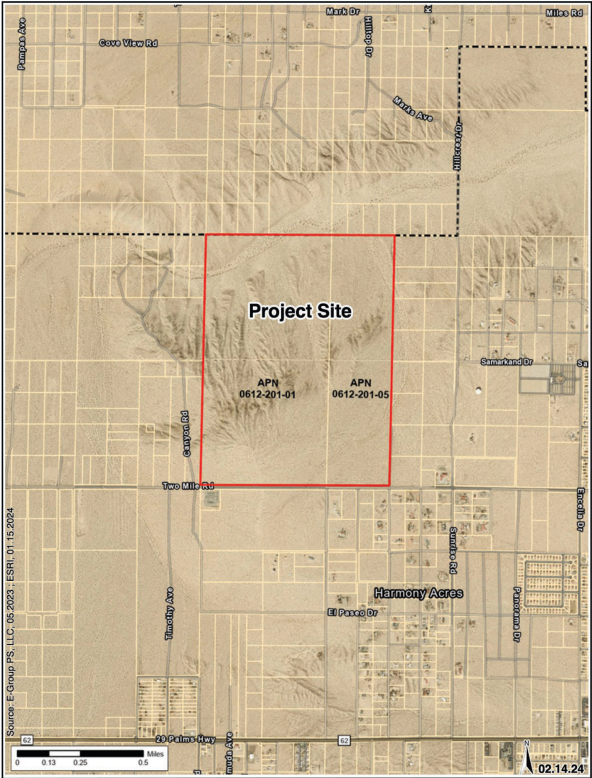
**CITY OF TWENTYNINE PALMS  
NOTICE OF PREPARATION**

**E-GROUP PS SOLAR PROJECT  
General Plan Amendment GPA23-000001  
General Plan Amendment GPA 24-000001  
Development Code Amendment DCA23-000016  
Rezone REZ23-000001  
Rezone REZ 24-000001  
Conditional Use Permit CUP23-000009  
Development Agreement 2023-000001**

**CONTACT PERSON:** Keith Gardner, Community Development Director  
Email: kgardner@29palms.org Phone: (760) 367-6799

**PROJECT LOCATION:** North of Two Mile Road and west of Noel Knolls Road. Assessor's Parcel Nos. 0612-201-01 and 0612-201-05.

**PROJECT DESCRIPTION:** The Project as a whole encompasses 477± acres, and will include two General Plan Amendments (GPA), two Rezones (REZ), a Development Code Amendment (DCA), a Conditional Use Permit (CUP), and a Development Agreement. The GPAs include 1) General Plan text and map amendments to add a new Renewable Energy land use district, and apply it to the northern 241 acres of the Project site on the Land Use Map, and 2) a General Plan map amendment to re-designate the southern 236 acres of the Project site from Rural Living (RL-5) and Single-Family Residential – Estate (RS-E) to Single-Family Residential, 1 acre minimum (RS-1). The REZs include 1) adding a new Renewable Energy district, which also requires a DCA to create development standards and permitted uses, and applying it to the northern 241 acres of the Project site on the Zoning Map, and 2) a Zoning Map amendment to re-designate the southern 236 acres of the Project site from RL-5 and RS-E to RS-1. The Conditional Use Permit is to allow the solar project to be constructed on the northern portion of the site. The Development Agreement is to address community benefit responsibilities of the applicant.



The applicant proposes the development of a commercial solar array on the northern 184± acres of a 477± acre site that is currently vacant, undeveloped land. The 184-acre solar array portion of the site is referred to herein as the “solar project.” The solar project will have the ability to generate 50 megawatts (MW) of solar power. The solar project will include rows of 720 ground-mounted solar panel racks each 104 feet wide and 252 feet long, separated by 10 foot wide service/maintenance drives. In total, 160,000 solar panels will be installed on the site. The panels will be mounted on pilons, at a fixed 21 degree angle, facing south. A total of 170 inverters will be connected to the panels and consolidated throughout the project. Power generated by the Project

will be routed to on-site transformers, and then via an underground line routed to the existing Southern California Edison Carodean substation located on the south side of Two Mile Road, east of Canyon Road. The interconnection line will extend from the solar project's south boundary down a new driveway (north of the existing Easy Street) to Two Mile Road, then westerly on Two Mile Road to the substation. No residential development is proposed as part of the Project.

**FINDINGS/DETERMINATION:** The City has reviewed and considered the proposed Project in the Initial Study below, and has determined that potentially significant impacts could result from the proposed Project. Therefore, an Environmental Impact Report shall be prepared. Based on the location and characteristics of the proposed Project, the EIR will include analysis of potentially significant effects on the environment related to the following topics: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Tribal Cultural Resources, and Utilities/Service Systems.

**PUBLIC REVIEW PERIOD:** A 30-day public review period for the Notice of Preparation will commence on February 28, 2024 and end on March 29, 2024 for interested individuals and public agencies to submit written comments on the document. Any written comments on the Notice of Preparation must be received at the City address (6136 Adobe Road) or via email to Keith Gardner at [kgardner@29palms.org](mailto:kgardner@29palms.org) within the public review period. Copies of the Notice of Preparation and Initial Study are available for review on the City's website at **29Palms.org**.

A public scoping meeting will be held for this project on March 21, 2024, at 5:00 PM, at Patriotic Hall, Luckie Park, 5882 Luckie Avenue, Twentynine Palms, CA.



**Environmental Checklist Form**

Project title: E-Group PS Solar Project, General Plan Amendment GPA23-000001, General Plan Amendment GPA24-000001, Development Code Amendment DCA23-000016, Rezone REZ23-000001, Rezone REZ24-000001, Conditional Use Permit CUP23-000009, and Development Agreement 23-000001	
Lead agency name and address: City of Twentynine Palms 6136 Adobe Road Twentynine Palms, CA 92277	
Contact person and phone number: Keith Gardner, Community Development Director 760-367-6799 x 1008 kgardner@29palms.org	
Project location: North of Two Mile Road and west of Noels Knoll Road (extended). Assessor’s Parcel Nos. 0612-201-05 and 0612-201-01.	
Project sponsor's name and address: Peter Bobro E-Group PS, LLC 40764 Winchester Road, Suite 590 Temecula, CA 92591	
Existing General Plan designation: Existing: Rural Living (RL-5), Single-Family Residential – Estate (RS-E) Proposed: Renewable Energy (E), Single-Family Residential (RS-1)	Existing Zoning: Existing: Rural Living (RL-5), Single-Family Residential – Estate (RS-E) Proposed: Renewable Energy (E), Single-Family Residential (RS-1)

**1. INTRODUCTION**

The purpose of this Initial Study (IS) is to assess impacts resulting from the construction and operation of a commercial solar project as described below.

This document has been prepared pursuant to the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Sections 15000 et seq). The City of Twentynine Palms will serve as the lead agency for CEQA purposes.

**1.1. Project Location**

The Project site is located at the northwest corner of Two Mile Road and Noels Knoll Road (extended), in the northwestern portion of the City. (See Exhibits 1 through 4) The site consists of 477 acres identified as Assessor’s Parcel Nos. 0612-201-01 and 0612-

201-05. The site is bordered by Two Mile Road on the south and unimproved future City streets, including Amboy Road on the north, Canyon Road on the west, and Noels Knoll Road on the east.

The Project will require both on-site and off-site improvements to connect to the electric grid. On-site improvements require the installation of a driveway and underground power lines, extending one-half mile south from the solar project to connect to the intersection of Two Mile Road north of Easy Street. Off-site improvements will extend the underground power lines westerly in Two Mile Road one-half mile to the existing Southern California Edison (SCE) Carodean substation.

## **1.2. Project Description**

The applicant proposes the development of a commercial solar array on the northern 184 acres of the 477 acre site. The site is currently vacant, undeveloped land. The City's Land Use and Zoning Map designates the northern 360 acres as Rural Living (RL-5) and the southern 117 acres as Single-Family Residential – Estate (RS-E). In order to assure that there is no net loss in residential units, consistent with SB 330, the southern 236± acres will be re-designated to Single Family Residential – 1 acre minimum (RS-1) to assure that sufficient residential units can be built to offset the loss of units from the development of the solar project. There are no plans to build residential units at this time.

The solar project will have the ability to generate 50 megawatts (MW) of solar power. In addition to on-site improvements, the Project will require off-site improvements, as described below.

### Project On-Site Improvements

The Project will result in the installation of 160,000 solar panels on the northern 184 acres of the site. The Project will include rows of 720 ground-mounted solar panel racks each 104 feet wide and 252 feet long, separated by 10 foot wide service/maintenance drives. The panels will be mounted on pilons, at a fixed 21 degree angle, facing south. (Exhibit 5, Site Plan) Each row of panels will be a minimum of 3 feet off the ground, and will be 6 to 7 feet tall. The pilons supporting each row will extend about 7 feet below ground. The panel racks will be interconnected with underground cabling, which will be installed in trenches and back-filled. The depth of these trenches is expected to be about 4 feet below grade.

A total of 170 inverters will be connected to the panels by cables, and consolidated on the panel racks. The inverters will be connected to an on-site pad-mounted transformer at the south-central boundary of the solar project. This transformer will convert the power generated by the Project to be compatible with the voltage in the SCE system.

The solar project will be crossed by 10 foot wide dirt service roads. At several locations, these roads will cross existing dry washes. For these crossings, pre-fabricated concrete-supported steel bridges will be installed above the wash. The perimeter of the site will be fenced, with one access gate at Samarkand Drive (extended), connecting to the driveway described above.

To connect to the power grid, the Project requires the installation of a driveway and underground power lines, extending one-half mile south from the solar project to connect to the intersection of Two Mile Road at Easy Street at the southern boundary of the Project site. (See “Project Off-Site Improvements,” below, for continued discussion of power grid connection).

No other structures are proposed.

The site will be graded to accommodate the rows of panels. The grading plan submitted with the Project estimates about 501,100 cubic yards of fill, and 501,500 cubic yards of cut, for a net export of 400 cubic yards. Construction is expected to require approximately 6 months.

As part of the Development Agreement for the Project, the applicant proposes to dedicate 33 feet of right of way on the north, east and south sides of the Project site for future roads(Samarkand Drive, Amboy Road and Noels Knoll Road); however, the applicant does not propose to improve these roadways.

#### Project Off-Site Improvements

From the Project site, power generated by the Project will be routed via an underground line to the existing Southern California Edison Carodean substation located on the south side of Two Mile Road, east of Canyon Road. The interconnection line will extend from the Project’s south boundary at the intersection of Two Mile Road and Easy Street, westerly on Two Mile Road to the substation.

Improvements will be required at the substation, including a structure for SCE’s equipment and remote terminal units, a new 115 kilovolt (kV) switchrack, relays, and 115kV transmission towers. In addition to the substation improvements, SCE will require that a 22 kV circuit breaker located at the Devers substation be replaced with a 63 kilo amp (kA) circuit breaker. The Devers substation is located approximately 30 miles southwest of the Project site, north of the City of Palm Springs. This replacement will occur entirely within the existing substation improvements, and no interconnection beyond what SCE currently has in place will be required.

#### Project Operation

The Project will be unmanned. Operation of the panels will be monitored remotely. Project personnel will visit the site for maintenance and system monitoring, on an as-needed basis. An inspection will be conducted annually. Maintenance activities, when necessary, will occur at night, when the panels are not collecting power. Any parts required will be stored remotely, and brought to the site as needed to service or replace the equipment.

The site will not be lighted. A self-powered, water-free cleaning robot will be used for regular cleaning of the panels to remove dust. Cleaning with a power-washer would occur only after a significant dust storm or similar event. On those occasions, water would be trucked in and the power washing system connected to the water truck.

### Required Entitlements

The Project applicant has filed the following applications:

General Plan Amendment GPA23-000001: A General Plan Amendment (text and map) to create a new Renewable Energy (E) land use district, and to modify the land use designation on the northern 241-acres of the subject site from Rural Living (RL-5) to E. Associated text, graphics, and statistics within the General Plan will be updated accordingly.

General Plan Amendment GPA24-000001: A General Plan Amendment (map) to redesignate the southern 236-acres from Rural Living (RL-5) and Single-Family Residential (RS-E) to Single-Family Residential (RS-1).

Development Code Amendment DCA23-000016: A Development Code Amendment proposes to create a new Renewable Energy (E) district. A new section of the Development Code will be created to establish the allowable uses and development standards in the E land use district.

Rezone REZ23-000001: A Rezone to modify the land use designation on the northern 241-acres of the subject site from Rural Living (RL-5) to E.

Rezone REZ24-000001: A Rezone to modify the land use designation on the southern 236-acres of the subject site from Rural Living (RL-5) and Single-Family Residential – Estates (RS-E) to Single-Family Residential (RS-1).

Conditional Use Permit CUP23-000009: A Conditional Use Permit to allow the Project to be constructed on the site.

Development Agreement: A Development Agreement is proposed for the Project. Details will be negotiated between the City and applicant.

In addition to City entitlements, other agencies may require permits for the Project, including the US Fish and Wildlife Service, California Department of Fish and Wildlife, Mojave Desert Air Quality Management District, and Regional Water Quality Control Board.

### **1.3. Surrounding Land Uses**

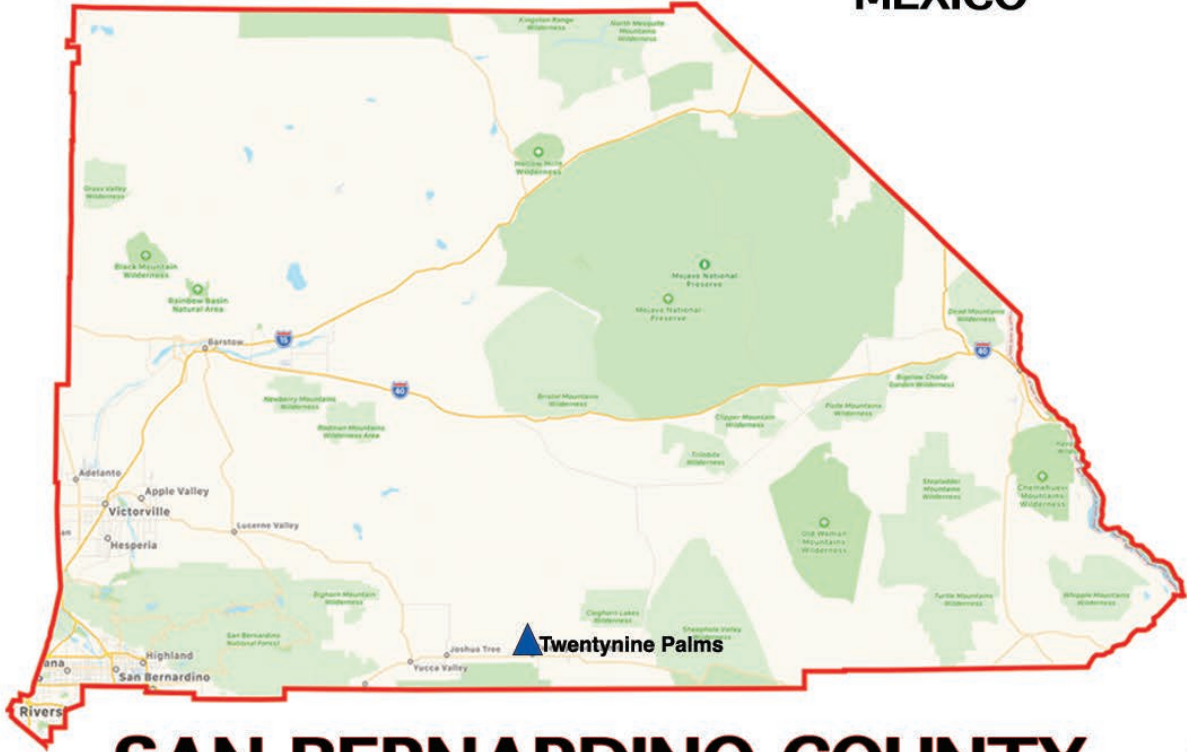
The Project site consists of 477 acres bounded by Amboy Road (extended) on the north, Two Mile Road on the south, Noels Knoll Road (extended) on the east, and Canyon Road on the west. Two Mile Road is the only paved road bordering the Project site. Lands adjacent to the Project site are generally vacant and low density residential, and designated Rural Living (RL-5), 5 acre minimum lot size, and Single-Family Residential – Estate (RS-E), 2.5 acre minimum lot size, consistent with the Project site. These land use designations allow single family homes on large lots.

Lands on the east side of Noels Knoll Road and south of Two Mile Road include scattered large lot single family homes and a church. No development occurs to the west or the north of the site.

# CALIFORNIA

PACIFIC OCEAN

MEXICO



# SAN BERNARDINO COUNTY



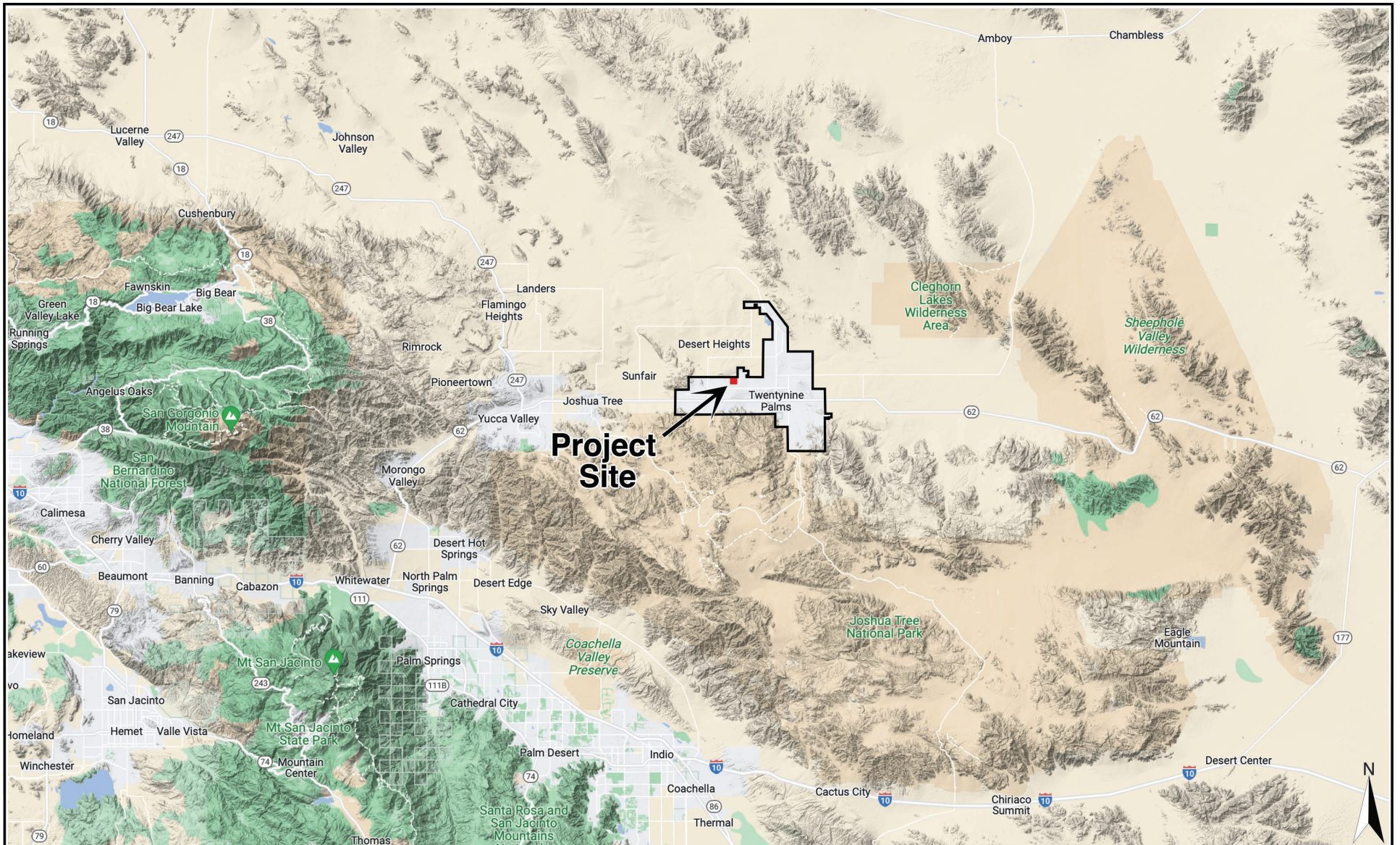
Exhibit



Solar Field Project  
City of Twentynine Palms  
Regional Location Map  
Twentynine Palms, California

1





Source: E-Group PS, LLC, 05.2023 ; Google Maps, 2023

12.01.23

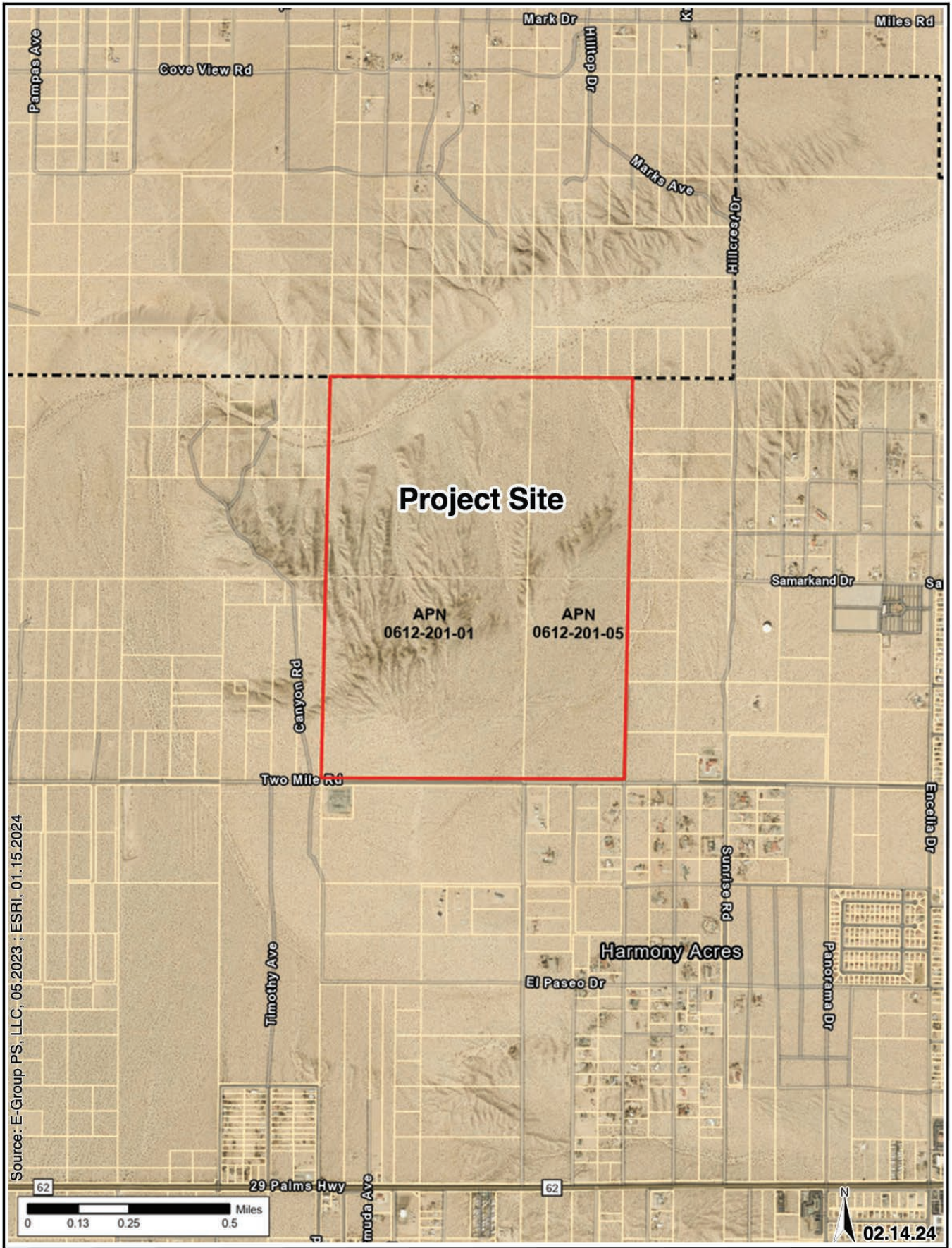


**Solar Field Project  
City of Twentynine Palms  
Vicinity Map  
Twentynine Palms, California**

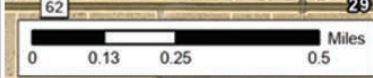
Exhibit

**2**





Source: E-Group PS, LLC, 05.2023 ; ESRI, 01.15.2024



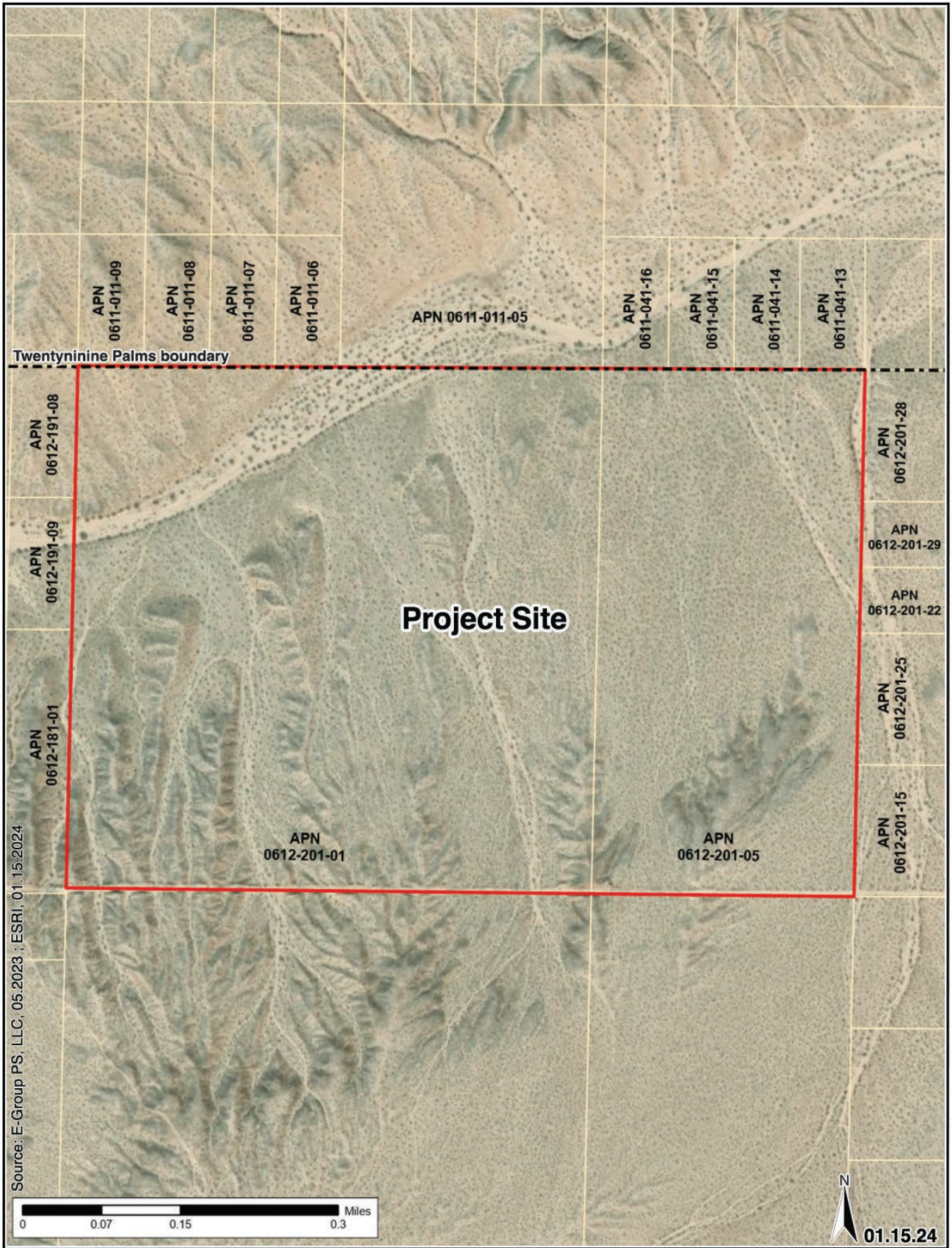
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**Solar Field Project  
 City of Twentynine Palms  
 Project Area Map  
 Twentynine Palms, California**

**Exhibit**

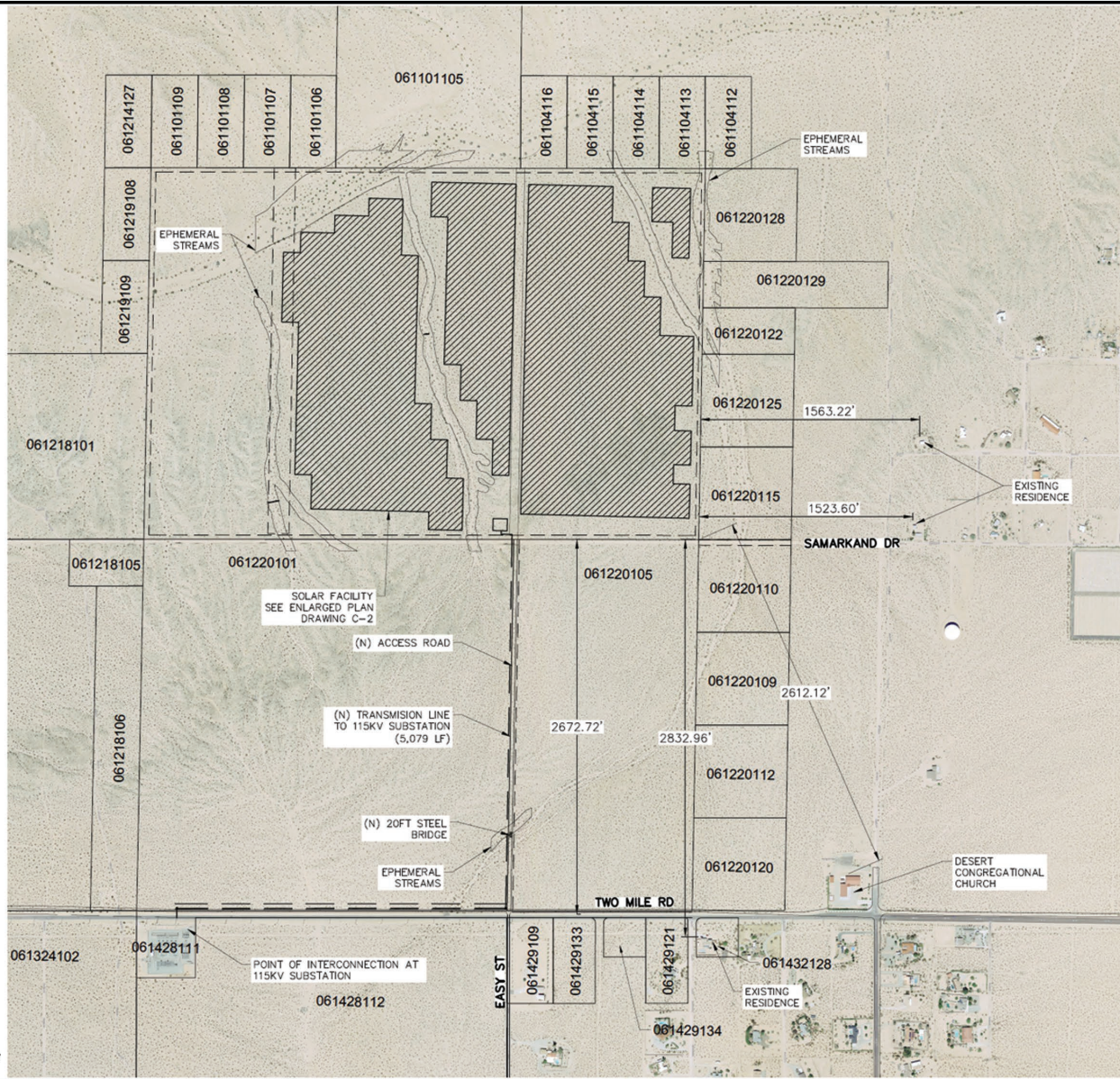
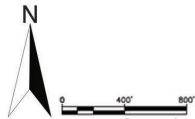
**3**







Source: E-Group PS, LLC, 05.2023 ; Google Maps, 2023



12.28.23

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

**DETERMINATION:** (To be completed by the Lead Agency)

On the basis of this initial evaluation:

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a <b>NEGATIVE DECLARATION</b> will be prepared.
<input type="checkbox"/>	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 <b>MITIGATED NEGATIVE DECLARATION</b> will be prepared.
<input checked="" type="checkbox"/>	I find that the proposed project <b>MAY</b> have a significant effect on the environment, and an <b>ENVIRONMENTAL IMPACT REPORT</b> is required.
<input type="checkbox"/>	I find that the proposed project <b>MAY</b> 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 <b>ENVIRONMENTAL IMPACT REPORT</b> is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	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 <b>NEGATIVE DECLARATION</b> pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or <b>NEGATIVE DECLARATION</b> , including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

*[Handwritten Signature]* *[Handwritten Signature]* *[Handwritten Date: 2/26/24]*

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significance.



	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>I. AESTHETICS</b> -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
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?	X			
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	X			

Sources: City of Twentynine Palms Development Code; Google Earth; City of Twentynine Palms General Plan; application materials.

### Environmental Setting

The City of Twentynine Palms is located in the Morongo Basin which forms the southwestern corner of the Mojave Desert. In the basin, Joshua Tree National Park lies to the south of the City and the Marine Corps Ground Air Combat Center to the north. The Mojave Desert is separated from the Sonoran Desert to the south by the Little San Bernardino and Eagle Mountains, which are extensions of the Transverse Range. The western Mojave Desert is a flat, sparsely vegetated region interspersed with mountain ranges and dry lakes.

The Project site is located in the northwest quadrant of the City, with elevations ranging from about 2070 to 2220 feet above mean sea level. The site's high point occurs on the south boundary, and a series of alluvial fans are clearly delineated on the west half of the site. A dry wash streambed bisects the east half of the property. The site is located 2 miles north of the San Bernardino range.

### Discussion of Impacts

- a) **Less Than Significant Impact.** A significant impact would occur if the proposed Project would have a substantial adverse effect on a scenic vista. A scenic vista is generally defined as a public view of highly valued visual and scenic resources exhibiting a unique or unusual feature, such as mountains, hillsides or bodies of water. An impact on a scenic vista would occur if the bulk or design of a structure or development permanently diminishes the quality of the valued view.

The proposed Project will result in solar panels on racking systems over the northern 184 acres of the site. These panels will be approximately 7 feet above the finished grade of the site. The site slopes downward from south to north.

The proposed GPA and rezone of the southern half of the site from RL-5 and RS-E to RS-1 would increase the residential density on site, which could impact views of scenic vistas. Although it would be expected that future development of residential units would comply with City development standards, including building height and setbacks, these will be reviewed on a case-by-case basis when projects are proposed for these parcels in the future.

Scenic vistas are to the south, including the San Bernardino range, and are partially blocked by the natural grade for properties and roadways to the north. Views of scenic vistas from properties and roadways to the south will not be impacted by the proposed Project, because the valued views are primarily to the south. From the east and west, views are also to the south, and would not be significantly affected by the proposed Project. Although the impacts associated with scenic vistas are expected to be less than significant, the potential impacts should be studied in detail in the EIR.

- b) **No Impact.** There are no designated scenic roadways or highways adjacent to the Project site, nor are there significant rock outcroppings, trees or historic buildings on or adjacent to the property. The closest scenic highway is Twentynine Palms Highway, located approximately 1 mile south of the site. The project's distance from the highway, as well as the slope of the property downward to the north, will prevent impacts to the scenic highway. No impact will occur, and no further discussion of this issue is required in the EIR.
- c) **Potentially Significant Impact.** The area surrounding the Project site is rural, as are the land use designations for the area. Although the site is located within the City, this part of the City is not planned for urban development. There is therefore potential for the Project to substantially degrade the existing visual character or quality of public views of the site and its surroundings, by introducing a large area of solar panels on racks to the natural desert environment and by increasing the residential density on the southern half of the site with a GPA and rezone. The EIR must analyze the potential impacts associated with the Project as it relates to scenic resources, and determine what mitigation measures may be available to reduce these impacts.
- d) **Potentially Significant Impact.** The proposed Project does not propose any lighting, and no impacts associated with lighting are expected. However, the Project will result in expanses of reflective solar panels over the northern 184 acres of the site. Also, the GPA and rezone of the southern half of the site from RL-5 and RS-E to RS-1 would increase the site's residential density, thus increasing the number of potential light and glare sources at future buildout. An analysis of the potential for glare must be conducted, and its results summarized in the EIR. Mitigation measures may be required to reduce the impacts of glare to less than significant levels.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>II. AGRICULTURE AND FOREST RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
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))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
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?				X

Sources: Farmland Mapping and Monitoring Program, CA Dept. of Conservation; General Plan Land Use Map; Google Earth.

### Environmental Setting

Agricultural production is generally not active in the Morongo Basin, nor in the City of Twentynine Palms. Commercial farming has not occurred in the City for decades, likely due to its arid environment. Neither the General Plan nor the Development Code contain agricultural or forestry designations or districts, but in certain districts agricultural and related uses are allowed with a Conditional/Administrative Use Permit or other restrictions.



## Discussion of Impacts

- a) **No Impact.** According to the California Department of Conservation, the City and its surrounding communities were not mapped in the Farmland Mapping and Monitoring Program (FMMP). The Project is not proposed on lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, according to the California Dept. of Conservation, nor is it used for agricultural purposes. The Project will have no potential to convert designated Farmland, no impact will occur, and no further discussion of this issue will be required in the EIR.
- b) **No Impact.** The Project is designated Rural Living and Single-Family Residential - Estate in the General Plan and Zoning map. Under these designations, only farming for non-commercial purposes is permitted, and farming for commercial purposes, including nurseries, requires a Conditional Use Permit in Rural Living. The proposed GPA and rezone of the southern half of the site from RL-5 and RS-E to RS-1 would not affect agricultural uses, as the RS-1 designation also permits farming for non-commercial purposes. The Project will occur entirely within the parcel boundaries, and will not impact the potential for neighboring properties to be farmed, should such a request be made by a surrounding property owner. There are no Williamson Act contracts on the Project site or surrounding properties, and the Project will have no impact on such contracts. The Project will not conflict with existing agricultural zoning or Williamson Act contract, and no further discussion of this issue is required in the EIR.
- c-d) **No Impact.** There are no lands designated for forestry or forestlands in or adjacent to the City, primarily due to the arid nature of the environment, which precludes the growth of forestlands. No timberland production occurs in or adjacent to the City. The Project will therefore have no impact on forest lands or the production of timber, and no further discussion of this issue will be required in the EIR.
- e) **No Impact.** As discussed above, the City has no forest or timberlands, and the Project will not impact agricultural activities allowed under the current land use designations of Rural Living (RL-5) and Single-Family Residential – Estate (RS-E) should such activities be proposed on surrounding lands in the future. The proposed GPA and rezone of the southern half of the site from RL-5 and RS-E to RS-1 would not impact the agricultural activities currently allowed because RS-1 also permits farming for non-commercial purposes. No impact will occur, and no further discussion of this issue will be required in the EIR.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>III. AIR QUALITY:</b> Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	X			
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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				X

Sources: City of Twentynine Palms General Plan; MDAQMD 2020 CEQA and Federal Conformity Guidelines; project materials.

### Environmental Setting

The City of Twentynine Palms lies within the Mojave Desert Air Basin (MDAB), and is under the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). MDAQMD is geographically the second largest of the 35 air districts in the State of California. All development within the City is subject to MDAQMD’s 2020 “California Environmental Quality Act (CEQA) and Federal Conformity Guidelines.” MDAQMD operates and maintains 13 regional air quality monitoring stations in different cities throughout its jurisdiction. The nearest monitoring station to the Project is located on Adobe Road, east of the Project site.

Criteria air pollutants are contaminants for which state and federal air quality standards (California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS)) have been established. MDAQMD is in nonattainment for ozone (O<sub>3</sub>) and inhalable particulate matter less than 10 microns in size (PM<sub>10</sub>) under the California and National Ambient Air Quality Standards (CAAQS and NAAQS, respectively). As a result, MDAQMD has adopted federal attainment plans for ozone and PM<sub>10</sub> under the Federal Clean Air Act.

Ambient air quality in the MDAQMD, including the Project area, does not exceed state and federal standards for carbon monoxide, nitrogen dioxides, particulate matter less than 2.5 microns in size, sulfur dioxide, lead, sulfates, hydrogen sulfide, or visibility reducing particles.

The Project will contribute to an incremental increase in regional ozone and PM<sub>10</sub> emissions during construction. During operation, the Project is expected to result in minimal emissions associated with maintenance and inspection trips at the Project.

### Discussion of Impacts

- a) **Potentially Significant Impact.** According to MDAQMD's 2020 CEQA and Federal Conformity Guidelines, a project is considered non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area relative to the applicable land use plan.

The proposed Project will result in a commercial solar project that will generate electricity, and generate limited periodic trips associated with maintenance, inspection and repair. These trips would be expected to be substantially lower than the daily trips generated by residents in the Rural Living designation. The Project site could generate up to 120 single family homes on its 477 acres, which would result in daily traffic, and the emissions associated with these houses and their traffic. Under the proposed Project, the northern 241 acres would be redesignated to Renewable Energy (E), which does not permit residential uses, and the southern 236 acres would be redesignated from RL-5 (1 DU/5 AC min) and RS-E (1 DU/2.5 AC min) to RS-1 (1 DU/AC), which increases the residential density. Overall, under the proposed Project, the site could ultimately be developed with up to 236 single family dwelling units, an increase of 116 dwelling units. Increasing the site's overall residential density would result in increased emissions on the property during the life of the Project. This increase was not considered in the MDAQMD's plans and programs, and would therefore have a potentially significant impact on the implementation of these plans and programs.

The EIR will analyze potential impacts to the implementation of air quality plans and provide mitigation measures if necessary.

- b) **Less Than Significant Impact.** A significant impact could occur if the Project would make a considerable cumulative contribution to federal or State non-attainment pollutants. The Mojave Desert portion of the MDAB is classified as a "non-attainment" area for ozone and PM<sub>10</sub>. Any development project or activity resulting in emissions of PM<sub>10</sub>, ozone, or ozone precursors will contribute, to some degree, to regional non-attainment designations of ozone and PM<sub>10</sub>.

Currently MDAQMD's approach to assessing cumulative impacts is based on the MDAQMD Attainment Plan forecasts for attainment of ambient air quality standards in accordance with the requirements of the California Clean Air Act (CCAA), which consider the regional forecasted future regional growth. Therefore, if all projects are individually consistent with the growth assumptions within MDAQMD's Attainment Plan, and criteria pollutant emissions do not exceed MDAQMD's recommended regional thresholds of significance, future development would not impede the attainment of ambient air quality standards.

The proposed Project will result in air quality emissions during construction, including the use of heavy equipment for grading and panel installation, as well as the generation of dust, and associated particulate matter. The Project's construction emissions must be quantified to determine whether they will meet or exceed the MDAQMD's thresholds of significance, or whether they will cumulatively impact air quality in the City. The CalEEMod model currently in effect will be used to quantify the Project's construction emissions. Although it is expected that construction impacts will be less than significant, the EIR will analyze the modeling results, to assure that impacts are less than significant, or are mitigated to less than significant levels.

The proposed solar project will not generate daily vehicle trips, but rather periodic maintenance, inspection and repair trips. The Project will disturb approximately 184 acres of the northern portion of the site for the installation of the solar panels. The potential long term impacts of this disturbance must be considered in the EIR. Because the solar project will remain as sand and dirt, with no paving or stabilization, the operation of the Project has the potential to generate dust, particularly during wind events. The EIR will evaluate these impacts, which are expected to be less than significant at this time, to either confirm this determination, or to provide mitigation measures if the impact would be potentially significant.

The solar project will also have a marginal need for electric power during its operations. The increased residential density resulting from the GPA and REZ would result in increased emissions on the property during the life of the Project. The Project's increased residential density, stationary sources of emissions from the solar project, as well as the limited traffic trips expected to be generated from the solar project, will be characterized and analyzed, to assure that emissions will be within the MDAQMD's thresholds of significance. This issue will be addressed in the EIR.

- c) Less Than Significant Impact.** A project would have a significant impact if the proposed project would expose sensitive receptors to substantial concentrations of criteria air pollutants or toxic air contaminants (TACs) including asbestos, diesel particulate matter (diesel PM) from construction equipment and vehicle traffic, and fugitive dust from construction activity. According to the MDAQMD CEQA and Federal Conformity Guidelines, residences, schools, daycare centers, playgrounds and medical facilities are considered sensitive receptor land uses.

As described above, the Project will require the use of heavy equipment during construction. The CalEEMod model will be utilized to determine whether the sensitive receptors (homes) to the east of the Project site will be impacted by Project construction. Although impacts are currently expected to be less than significant, the EIR will analyze the modeling results, and provide mitigation measures if emissions exceed established thresholds.

- d) No Impact.** The proposed Project will result in the development of a commercial solar project on 184 acres of a 477-acre site. There is some potential for odors to occur during construction, primarily from the emissions of heavy equipment, but these odors would occur primarily during the grading phase of the Project, would disperse quickly, and would be temporary. The operation of the solar project is not expected to generate any odors, as the solar panels will not emit any odor-causing materials. No impact is expected, and no further discussion of this topic is required in the EIR.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>IV. BIOLOGICAL RESOURCES --</b> Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	X			
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	X			
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
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? (General Plan)	X			
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

Sources: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010).

### Environmental Setting

The City of Twentynine Palms is located within the Mojave Desert biome in a portion of the western Mojave Desert in San Bernardino County, California. The primary vegetation community in the City is Creosote bush scrub. The Project site is also crossed by desert dry washes and braided alluvial fans, which may qualify as waters of the State of California. There are no waters of the US in the City, due to the lack of connection to a navigable waterway.

The City participates in the West Mojave Plan, which serves as a habitat conservation plan for both public and private entities in the West Mojave Desert. It encompasses approximately 9.4 million acres of land that includes deserts throughout San Bernardino, Kern, Inyo, and Los Angeles Counties. Portions of the plan include requiring focused surveys for Special Status Species, burrowing owl, and sensitive plants where suitable habitat is present.

### Discussion of Impacts

- a) **Potentially Significant Impact.** The Project site occurs in a sparsely developed area of the City. The potential for sensitive species, including desert tortoise and burrowing owl, is not currently known. A biological resource analysis must be conducted to determine whether any sensitive species occur on the site, and what impacts the development of the Project could have on those species if they occur. The results of the biological resource analysis will be summarized in the EIR, and mitigation measures prepared to assure that impacts to sensitive species are reduced to less than significant levels.
- b) **Potentially Significant Impact.** The Project occurs on a site which currently contains several washes. The Project proposes to bridge these washes, but whether these bridges will impact sensitive habitat is not known. An analysis of the habitat and how waters of the State could be impacted by the Project must be conducted to determine what impacts the Project will have on habitat and washes. This analysis must also include any necessary mitigation measures to assure that any impacts to waters of the State are mitigated to less than significant levels.
- c) **No Impact.** There are no waters of the US in the City, due to the lack of connection to a navigable waterway. Therefore, the Project would have no impact to federally protected wetlands as defined by Section 404 of the Clean Water Act.
- d) **Potentially Significant Impact.** The Project's location in a sparsely developed area of the City results in the potential for the Project to block the movement of native and migratory species, including migratory birds. The EIR will include an analysis of the potential impacts of the project to wildlife movement, and whether the Project harbors any wildlife nursery sites.
- e-f) **No Impact.** The City of Twentynine Palms General Plan establishes goals and policies to ensure that natural resources including the pallid bat, pallid San Diego pocket mouse, and desert tortoise are protected.

Development of the proposed Project will occur within the City of Twentynine Palms and will follow any mitigation measures specified in the project-specific biological report specifically relating to the species identified in the General Plan; therefore, it will have no impact on the overlay districts nor any conflict with City or county regulations and plans.



	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>V. CULTURAL RESOURCES</b> -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?	X			
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?	X			
c) Disturb any human remains, including those interred outside of formal cemeteries?			X	

Sources: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010).

### Environmental Setting

The City is located in the Mojave Desert. Archaeologists generally divide prehistory in the Mojave Desert region into five periods marked by changes in archaeological remains that date back to 12,000 years ago. The Lake Mojave period (ca. 8000-5500 B.C.), is associated with small mobile groups of hunters and gatherers who inhabited the Mojave Desert. These groups continued to inhabit the region during the Pinto Period (ca. 5500-2500 B.C.), and relied more on ground foods, small and large game animals, and the collection of plants. Distinct cultural changes occurred during the Newberry Period (ca. 1500 B.C.-500 A.D.), when small residential groups moved between select localities, established a geographically expansive land-use pattern and engaged in long-distance trade. The two ensuing periods, Saratoga (ca. 500-1200 A.D.) and Tecopa (ca. 1200-1770s A.D.), are characterized by seasonal group settlements near accessible food sources and the intensification of the use of plant foods, as evidenced by groundstone artifacts and the evolution of pottery.

The City is located in an area historically occupied by two Native American groups, the Serrano and the Chemehuevi. The Serrano's homeland was centered in the nearby San Bernardino Mountains, but also included lowlands along both flanks of the mountain range. The Chemehuevi, a subgroup of the Southern Paiute, traditionally occupied the Mojave Desert east to the Colorado River. The Serrano settled mostly near where flowing water emerged from the mountains. The Chemehuevi, with fewer people spread over a much wider area, cultivated, gathered, and hunted in the open deserts, but were also known for their agricultural practices. Members of each tribe gathered at important base camps or villages for annual ceremonies and tribal interaction with neighboring groups.

In the Twentynine Palms area, the Serrano and the Chemehuevi relied on the waters of a desert oasis located in the southeastern portion of the City. The Serrano first settled in the oasis and named it *Maara*, "the place of little springs and much grass". The Chemehuevi began to settle around the oasis in the mid-19th century.

While European contact may have occurred as early as 1771 or 1772, direct European influence on Serrano and Chemehuevi lifeways did not begin until the mission system expanded to the edge of Serrano territory in the 1810s. By the early 20th century, the majority of the Serrano and Chemehuevi population was incorporated into the reservation system. Today, most Serrano descendants live on the San Manuel and the Morongo Indian Reservations, while the Chemehuevi are divided among the Chemehuevi, the Colorado River, and the Morongo Reservations.

Non-Native settlement occurred in the Twentynine Palms area by the late 1800s, when prospectors sought their fortunes in nearby gold camps. The first pioneer homesteaders came in 1910, and a small community started to grow. In 1952, the U.S. Defense Department established a marine base north of the oasis for glider training, now known as the U.S. Marine Corps Air Ground Combat Center. The City of Twentynine Palms was incorporated March 23, 1987.

### **Discussion of Impacts**

- a), b) Potentially Significant Impact.** The Project site is currently vacant, and no historic structures occur on the property. A number of prehistoric resources have been identified in the City. Although the Project site is not known to have harbored resources, and is not located near water sources used by the Serrano or Chemehuevi, a cultural resource assessment must be conducted to determine whether resources occur on the site, and whether mitigation measures are required to reduce the impacts to less than significant levels. The EIR will summarize the findings of the study, and include any required mitigation measures.
- c) Less Than Significant Impact.** There are no known cemeteries or buried human remains on the Project site. The Project is located approximately 1,350 feet west of the City's public cemetery, but will not impact the cemetery.

California law requires that if human remains are identified during earth moving activities, all activity stop, that the coroner be notified to determine the nature of the remains and whether Native American consultation is needed. Although the impacts to human remains are expected to be less than significant, the EIR will examine the potential impacts to assure that this is indeed the case.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>VI. ENERGY</b> -- Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

Source: Twentynine Palms General Plan (2012).

### Environmental Setting

Nuclear energy, fossil fuels (e.g. oil, coal and natural gas) and renewable sources (e.g. wind, solar, geothermal and hydropower) are various sources of energy. The electrical energy to the City is provided by Southern California Edison (SCE). Natural gas service is provided to the City by Southern California Gas Company (SoCalGas). Natural gas is mainly utilized for water heaters and heating of homes, as well as a broad range of commercial and industrial equipment. In areas where natural gas is not available, propane gas, stored in on-property tanks, is also utilized. Both SCE and SoCalGas offer various programs and incentives for all users to help reduce energy consumption.

In 2002, California established a Renewable Portfolio Standard (RPS) that requires a retail seller of electricity to include in its resource portfolio a certain amount of electricity from renewable energy sources, such as wind, geothermal, small hydro, and solar energy. Senate Bill (SB) 100, signed into law in September 2018, requires utilities to procure 60 percent of their electricity from renewables by 2030 and sets as a State policy that State agencies and end-use retail customers receive 100 percent of energy from renewable and zero- carbon resources by 2045. To ensure retail sellers meet their RPS requirement, the California Public Utilities Commission (CPUC) is responsible for establishing enforcement procedures and imposing penalties for non-compliance with the program (CPUC, 2018).

### Discussion of Impacts

- a) **Less Than Significant Impact.** The Project will result in a commercial solar project that will generate 50 MW of electrical power, which will be routed to SCE’s substation for use on the electric grid. As a result, the solar project is expected to have a positive impact on long-term power use, and no impact on wasteful, inefficient or unnecessary power use. In addition, the solar project will not require natural gas, and will result in a very low use of gasoline during operation, since it will not generate daily vehicle trips.

The proposed GPA and REZ will increase the site’s residential density by 116 single-family dwelling units. Although no residential development is proposed at this time, future buildout of the site under the new RS-1 land use designation would result in a net increase in energy use that was not previously predicted for the site.

The EIR will quantify the amount of energy buildout of the site would require under the new density, and assure the amount is not excessive or wasteful.

The Project will require some electrical power and gasoline use during its construction. The amount required is currently undetermined, but is expected to result in less than significant amounts of use. The EIR will quantify the amount of energy that the Project will require during construction, and assure that this amount is not excessive or wasteful.

- b) **No Impact.** The Project will result in a commercial solar project which will implement the State's Renewable Portfolio Standard and provide a new source of renewable energy for electricity providers. The proposed GPA and REZ will increase the site's residential density by 116 single-family dwelling units; however, future development of the site would be required to develop in accordance with the building and energy codes adopted at the time of construction to assure there is no obstruction to renewable or energy efficiency plans. Therefore, the Project will not obstruct plans for renewable energy or energy efficiency, and no further discussion of this subject is required in the EIR.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>VII. GEOLOGY AND SOILS</b> -- Would the project:				
a) Expose people or structures to 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?				X
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?	X			
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
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?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X

Sources: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010).

### Environmental Setting

The City is located within a wedge-shaped fault block known as the “Mojave Block.” The Mojave Block is located at the junction of two district geomorphic provinces: the Eastern Transverse Ranges Province, a region of low to moderately high mountains that include Joshua Tree National Park, the Little San Bernardino Mountains, the Pinto Mountains, and several ranges to the southeast; and the Mojave Desert Province, an arid region of alluvial fans, expansive desert plains, dry lakebeds and scattered mountain ranges. The Mojave Block is bounded by the Garlock Fault to the north, the San Andreas fault system

to the west and southwest, and the southern Death Valley fault zone, Granite Mountains, and Packard Well faults to the east.

In the Twentynine Palms area, the trace of the Pinto Mountain Fault is recognized by a pressure ridge and divides into two splays. The northern splay of this fault is mostly buried by Quaternary valley fill but emerges where it joins the west splay of the Mesquite Lake Fault east of the City limits. The region is susceptible to a range of geologic hazards, including ground rupture, major ground shaking, slope instability, and collapsible and expansive soils.

### Soils

The Project area is predominantly underlain by Quaternary-age relatively younger surficial sediments and older surficial sediments. These relatively younger surficial sediments are mapped as windblown sand (Qs), younger alluvium (Qa), and micaceous clay and silt (Qc). The older alluvial surficial sediments (Qoa) are described as older valley fill materials derived from mountains to the west and south.

### **Discussion of Impacts**

- a) i) **No Impact.** The Project site is not underlain by any known fault. The two closest faults are the West Calico Fault to the northwest, and the Pinto Mountain Fault to the south. The site will not be subject to ground rupture, and no impact is expected. As a result, the EIR will not address this issue any further.
  
- ii) **Less Than Significant Impact.** The Project is located in a seismically active region where local and regional faults can produce severe ground shaking. The two main faults crossing the City, Pinto Mountain fault and Mesquite Lake fault, have the potential of generating earthquakes of up to 7.3 magnitude on the Richter scale. The Project will be required to implement the most current Building Code in effect at the time that the Project is undertaken. The Code contains specific measures to address strong ground shaking, to protect structures from failure. Nevertheless, the EIR will consider the potential impacts of significant groundshaking, to assure that the Project will not be impacted by this issue.
  
- iii) **No Impact.** The Project site is not located in an area identified in the General Plan as susceptible to liquefaction. The closest liquefaction potential identified in the General Plan occurs approximately 3 miles to the east. Because the depth to groundwater under the site exceeds 50 feet, no liquefaction potential exists, and no further discussion of this issue will be provided in the EIR.
  
- iv), c) **Less Than Significant Impact.** The site occurs on a sloped property that clearly has been sculpted by braided channels, particularly in its northwestern portion. The EIR must consider whether the site's topography, when affected by Project-related grading, could result in impacts related to landslides. Although it is currently understood that the Project's conformance to grading and compaction requirements will assure that these impacts are less than significant, the analysis in the EIR will confirm this, or impose any mitigation measures to assure that landslide impacts are reduced to less than significant levels.

- b) **Potentially Significant Impact.** The Project will result in the grading of most of the site, as well as trenching for on-site wiring and off-site conduit to the SCE substation. Unlike most development projects, the Project will not result in the covering of disturbed surfaces by asphalt or buildings. As a result, the completed Project has the potential to result in soil erosion, both from water and wind. The EIR will examine these potential impacts, and, if necessary, evaluate potential mitigation measures to reduce Project impacts to less than significant levels.
  
- d) **No Impact.** The City's soils are typically sands and silts typical of alluvial fans. The Project site's soils are consistent with that soil profile, and are not expected to contain clay or similarly expansive components. As a result, construction of the proposed Project will not be impacted by expansive soils, and no further discussion of this issue is required in the EIR.
  
- e) **No Impact.** The solar project proposes no septic system, and will not be connected to a sewer system. The construction of the commercial solar project would require temporary portable toilets during construction, and may require temporary portable toilets for extended maintenance or repair. These toilets would be brought on site and serviced by the provider, and no sanitary waste would result. The proposed GPA and REZ will increase the site's residential density, however future development would be subject to the same City requirements pertaining to the installation of septic tanks as are imposed on all residential projects in the City. Therefore, there will be no impacts associated with soils capable of supporting septic systems, and no further discussion of this issue will be required in the EIR.
  
- f) **No Impact.** According to the City's General Plan, San Bernardino County, in general, has an extensive record of fossil life starting in Jurassic time, 150 million years ago. Fossilized remains are expected to occur within areas containing older finer-grained fluvial, lacustrine, or aeolian deposits. The Project area primarily consists of alluvium (Qoa), which consists of late Pleistocene gravelly sands. The Project proposes shallow excavations (up to 7 feet in depth) for pilons to support the solar arrays. At these shallow depths, and in alluvium occurring on the site, potential for paleontological deposits is negligible. No significant paleontological resources are expected at the site, and no impact will occur. No further discussion of this issue will be required in the EIR.



	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>VIII. GREENHOUSE GAS EMISSIONS --</b> Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	X			

Sources: City of Twentynine Palm General Plan; San Bernardino County Regional Greenhouse Gas Reduction Plan (March 2021); MDAQMD CEQA and Federal Conformity Guidelines; project materials.

### Environmental Setting

Certain gases in the earth’s atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth’s surface temperature. The principal GHGs contributing to the greenhouse effect are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated compounds. GHG sources include both natural and anthropogenic processes.

Anthropogenic GHG emissions in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and have led to an overall trend of unnatural warming of the earth’s climate, known as global climate change or global warming.

State laws, such as Assembly Bill 32 (AB 32) and Senate Bill 32 (SB 32), require all cities to reduce greenhouse gas emissions to 1990 levels by the year 2020. SB 32 is the extension of AB 32 which requires the state to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030.

In 2021, SANBAG prepared a Regional Greenhouse Gas Inventory and Reduction Plan (March 2021) which included a greenhouse gas inventory and forecast for Twentynine Palms. The City participated in the plan development and set a goal to reduce its community GHG emissions to a level of 46% below 2008 GHG emissions level by 2030. The City is expected to meet and possibly exceed this goal with joint state and local efforts and reduction measures set forth by AB 32. In addition to the Regional Greenhouse Gas Inventory and Reduction Plan, the City’s General Plan includes policies and measures to facilitate GHG emission reduction through encouraging alternative transportation, promoting renewable energy, and implementing energy efficient building technologies.

### Discussion of Impacts

- a) **Less Than Significant Impact.** The proposed solar project will generate negligible GHG emissions during operations, but will generate GHG emissions during construction. Construction equipment and worker trips will result in GHG emissions. The level of these emissions is not known, and must be considered in the EIR. Although impacts associated with GHG emissions during construction are

expected to be less than significant, the EIR will quantify these emissions and assure that they do not exceed thresholds of significance.

The increased residential density resulting from the GPA and REZ would result in increased greenhouse gas emissions on the property during the life of the Project. The Project's increased residential density will be characterized and analyzed to assure that emissions will not exceed thresholds of significance. This issue will be addressed in the EIR.

- b) Potentially Significant Impact.** The Project will result in a commercial solar project that will produce electricity for the power grid. As a renewable power source, operation of the solar project will assist the City, the region and the State in lowering GHG emissions generated by power generation.

The proposed GPA and REZ will increase the site's residential density by 116 single-family dwelling units. Although no residential development is proposed at this time, future buildout of the site under the new RS-1 land use designation would result in a net increase in greenhouse gas emissions that was not previously predicted for the site. The EIR will quantify the increase in GHG emissions resulting from future buildout of the site under the new land use designation, and assure it will not conflict with an adopted policy, regulation or plan for reducing GHG emissions. This issue will be addressed in the EIR.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>IX. HAZARDS AND HAZARDOUS MATERIALS --Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		
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?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
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?				X
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?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Sources: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010).

### Environmental Setting

The proper management of hazardous materials is a common concern for all communities. Products as diverse as gasoline, paint, solvents, household cleaning products, refrigerants, and radioactive substances are categorized as hazardous materials. The storage, use, generation, transport, and disposal of hazardous materials are highly regulated by federal, state, and local laws and regulations.

The San Bernardino County Fire Department’s Hazardous Materials Division oversees and regulates businesses in the City that transport, store or use hazardous materials in larger quantities. The Department of Toxic Substances Control (DTSC) lists 16 large quantity users in the City, primarily businesses located on or near Highway 62. Sites

associated with cleanup of hazardous materials in and near the City have been, and currently are those associated with the military installations at the Marine Corps base, north of the City.

### Discussion of Impacts

- a, b) **Less Than Significant Impact with Mitigation.** The Project will result in the installation and operation of a commercial solar project. The Project is not expected to use or store large quantities of hazardous materials, but will include transformers and similar equipment which could use such materials. In addition, construction activities have the potential to bring oils, solvents and chemicals onto the site for use in the construction process. Although the regulations in place at the local, regional and national level are expected to assure that impacts associated with the use and transport of hazardous substances are less than significant, the EIR will analyze, and to the extent possible quantify the use and storage of these materials, and include any mitigation measures necessary to reduce impacts to less than significant levels.
- c) **No Impact.** There are no schools within ¼ mile of the Project site, and the Project will not handle or use acutely hazardous materials. Therefore, no impact will occur, and no further discussion of this topic is required in the EIR.
- d) **No Impact.** A search of the DTSC and SWRCB lists identified no open cases of hazardous waste violations in the City. Therefore, the Project is not on a parcel included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, no impact will occur, and no further discussion of this issue is required in the EIR.
- e) **No Impact.** The Project site is located 5.7 miles southwest of the Marine Corps base, and is not within its land use plan. The Project will not result in a safety hazard, and no impact will occur. No further discussion of this subject is required in the EIR.
- f) **No Impact.** The Project will result in a commercial solar project. The Project site is bounded by dirt roads to the north, east and west, and Two Mile Road (paved) to the south. The Project will not impact those roads. City's emergency response plans will continue to be implemented as they have been, with or without the Project. There will be no impact, and no further discussion of this subject is required in the EIR.
- g) **No Impact.** The General Plan identifies the project site as being in a Local Responsibility Area and a Moderate Fire Hazard Zone. The Project site is not in or near a heavily vegetated area, and will not be impacted by wildfires. No impact will occur, and no further discussion of this issue is required in the EIR.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>X. HYDROLOGY AND WATER QUALITY --</b> Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
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;		X		
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;		X		
(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		X		
(iv) impede or redirect flood flows?		X		
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

Sources: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010); Amended Final Urban Water Management Plan for Twentynine Palms Water District (TPWD).

## Environmental Setting

### Domestic Water

Twentynine Palms Water District (TPWD) manages and distributes the local ground water supply in the City of Twentynine Palms and portions of the surrounding unincorporated areas of San Bernardino County. The District's water service area spans 87 square miles, maintaining 200 miles of pipeline and 17 million gallons of water storage capacity. The District's water supply source is 100 percent local groundwater extracted from four sub-basins south of the Pinto Mountain Fault, which are fed by rainfall in the Pinto Mountains.

The District overlays portions of the Indian Cove, Eastern and Fortynine Palms sub-basins of the Joshua Tree Basin, and part of the Twentynine Palms Valley Basin.

As an urban water supplier, TPWD is mandated to prepare an Urban Water Management Plan (UWMP) per the California Water Code, undertaking water supply planning over a 20-year period in five year increments, by analyzing existing and projected water supply opportunities including recycled water for existing and future demands, in normal, single-dry and multiple-dry years, and implementing conservation and efficient use of urban water supplies.

#### Wastewater Treatment

The only Wastewater Treatment Plant (WWTP) in the region is located at the Marine Corps Air Ground Combat Center (MCAGCC). The facility treats all wastewater generated from the Mainside area of the MCAGCC. The City, including the Project area, does not have a sanitary sewer system and currently operates with septic tanks.

#### Flood Control/Drainages

The City, including the Project site, is located in the southern Mojave Desert. With an average precipitation of 5 inches per year, the area sees infrequent thunderstorms that can cause flooding in the City.

Twentynine Palms Channel, the only major drainage structure in the City, was designed and constructed to protect the central business district and downtown area. The natural major drainages of Fortynine Palms Canyon, Twentynine Palms Wash, Indian Cove and Dog Wash, as well as small unnamed drainages in the Pinto Mountains, can carry flash floods and impact downstream development in the City.

The San Bernardino County Flood Control District (SBFCD) is responsible for managing regional drainage within and in the vicinity of Twentynine Palms. The City works with SBFCD to manage local drainages in the City, which are divided between well-defined drainage courses (some have been channelized) and areas of wide sheet flow. Development that may alter the direction of flow onsite are conditioned per standard San Bernardino County practices to maintain the existing site drainage patterns at inlets and outlets.

The Project site will be subject to City requirements relating to flood control. The City implements standard requirements for stormwater retention and participates in the National Pollution Discharge Elimination System (NPDES) to protect surface waters from pollution.

#### Water Quality

Water quality is regulated by multiple agencies, depending on the source. The TPWD implements the standards of the Regional Water Quality Control Board (RWQCB) in its distribution of domestic water.

Surface water quality in the region is largely under the influence of land uses that affect runoff, such as urban and industrial uses. Runoff from stormwater can transport pollutants that collect on the ground surface and affect water quality of receiving streams, rivers, and channels.

## Description of Impacts

- a) **Less Than Significant Impact.** The City and RWQCB impose requirements for surface water protection with which the Project is required to comply. The Project is required to prepare a hydrology study to control surface water pollution during construction and operation. The EIR will analyze the Project's hydrology study and other plans and impose any mitigation measures necessary to assure that water quality is not affected by the Project.

The Project does not propose septic systems, and will therefore have no impact on waste discharge. Future development of the site under the proposed RS-1 land use designation would be subject to the same City standards and requirements regarding septic tanks and surface water protection as all residential development in the City. Overall, the impacts to water quality are expected to be less than significant, but will be analyzed in the EIR.

- b) **Less Than Significant Impact.** The solar project will not require on-site water supplies, but would use trucked-in water periodically to clean the solar arrays. The proposed GPA and REZ will increase the site's residential density by 116 single-family dwelling units. Although no residential development is proposed at this time, future buildout of the site under the new RS-1 land use designation would result in a net increase in water demand. The EIR must quantify the potential water use and assure the Project will not impact the water supply.

- c i)-iv) **Less Than Significant Impact with Mitigation.** As described above, the City requires the preparation of a hydrology study to analyze and design the on-site flood control system for the site. In the case of the proposed Project, much of the ground surface will remain in its natural condition, which could result in siltation if the system is not adequately designed. The EIR will review the design of the flood control system, and assure that impacts are less than significant, or impose mitigation measures if necessary to assure that neither storm flows nor erosion impact off-site properties or receiving waters.

- d) **No Impact.** The Project is not located in the vicinity of a water body or a dam. The City is located inland and would not be subject to tsunami. No hazard from dam failure, tsunami or seiche is possible. No impact would occur, and no further discussion of this subject will be provided in the EIR.

- e) **No Impact.** The proposed Project will be required to comply with all applicable water quality standards approved by the City and the Regional Water Quality Control Board for both construction activities and long-term operation of the Project. Adherence to the RWQCB and City's standard requirements related to water quality will ensure there will be no impact to a water quality control plan. No further discussion of this issue will be required in the EIR.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>XI. LAND USE AND PLANNING</b> - Would the project:				
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	X			

Sources: City of Twentynine Palms General Plan; project materials.

### Environmental Setting

The Project site is currently vacant and surrounded by sparsely developed desert lands. The site is currently designated Rural Living, 5 acre minimum, and Single-Family Residential – Estate, 2.5 acre minimum, which allows single family homes on larger lots, and does not permit commercial solar projects. The Project will require two General Plan Amendments, two Rezones, and a Development Code amendment.

### Discussion of Impacts

- a) **No Impact.** The Project site is currently vacant, and occurs in an area of the City with large-lot residential uses scattered to the south and east. Little to no development occurs on the north or west. The Project will not divide an established community, and no impact will occur. No further discussion of this issue will be required in the EIR.
- b) **Potentially Significant Impact.** The Project proposes two General Plan Amendments, two Rezones, and a Development Code Amendment to add a new Renewable Energy Land Use Designation to these documents, and to redesignate the southern 236 acres to RS-1, which increases the density to make up for lost residential density on the northern 240 acres per Senate Bill 330 (No Net Loss). The EIR must analyze whether, or to what extent this new land use designation would impact the goals, policies and programs of the General Plan and the standards of the Development Code. If necessary, the EIR will need to consider mitigation measures to reduce identified impacts to less than significant levels.



	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>XII. MINERAL RESOURCES</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?				X
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?				X

Sources: Google Earth; City of Twentynine Palms General Plan.

### Environmental Setting

The City is not identified as a mineral resource area of significance, although mining has occurred in and around the City in its history. The General Plan uses the State’s mineral resource designations to determine the potential for mineral resources to exist in any given area.

### Discussion of Impacts

a), b) **No Impact.** Neither the City nor the Project site are designated by the State as having significant mineral resources. As a result, implementation of the Project will not impact such resources, and no further discussion of this issue is required in the EIR.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>XIII. NOISE</b> - Would the project result in:				
a) Generation of 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?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
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?				X

Sources: Google Earth; City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010).

### Environmental Setting

The City has established goals, policies, and programs to limit and reduce the effects of noise intrusion on sensitive land uses and set acceptable noise levels for varying types of land uses in its General Plan. The City uses the Community Noise Equivalent Level (CNEL) to guide acceptable noise levels in the community. The CNEL scale establishes acceptable noise levels for low density, single family homes at 50 to 60 dBA, and conditionally acceptable levels at 55 to 70 dBA. The CNEL scale represents an average of noise levels over a 24-hour period and is weighted for the quieter evening and nighttime periods. The City also enforces noise events through the City Noise Ordinance (Chapter 19.74).

The Project area is sparsely developed, generates limited traffic, and is subject to a quiet noise environment currently.

### Discussion of Impacts

- a) **Less Than Significant Impact.** The Project proposes an un-manned commercial solar project. The solar project’s operation will generate some noise from the equipment, including inverters and transformers, to be installed on the property. The level of noise that this equipment will generate is not currently known. The proposed GPA and REZ will increase the site’s residential density by 116 single-family dwelling units. Although no residential development is proposed at this time, future buildout of the site under the new RS-1 land use designation would result in a net increase in operational noise not previously predicted for the site. The level of noise that the Project will generate during its operation and future buildout will be further analyzed in the EIR.

In addition, the Project will generate noise from construction equipment during the grading and installation of the Project's improvements. The EIR must consider these potential impacts and assure that they remain less than significant.

- b) **Less Than Significant Impact.** Excessive vibration during construction occurs only when high vibration equipment (i.e., compactors, large dozers, or pile drivers) are operated. The proposed Project may require limited use of equipment with high vibration levels during construction. The EIR will analyze the equipment to be used, and assure that impacts associated with the temporary use of this equipment does not cause significant levels of vibration.
  
- c) **No Impact.** The proposed Project is located more than 5 miles southwest of the Marine Corps airfield. The solar project will be unmanned and will not introduce new sensitive receptors to the area. The site is currently designated for residential uses; therefore the proposed GPA and REZ will not introduce new sensitive receptors to the area that were not previously planned for. There will be no impact from noise at the airfield, and no further discussion of this issue is required in the EIR.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>XIV. POPULATION AND HOUSING</b> – Would the project:				
a) Induce substantial 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)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Sources: Google Earth; City of Twentynine Palms General Plan.

### Environmental Setting

Per the 2020 U.S. Census, the total population in the City was 28,065, which includes the MCAGCC. The City’s 2012 General Plan lists an ultimate buildout population of 103,275 for the entire City, including 22,500 for the MCAGCC and 80,775 for the remainder of the City.

### Discussion of Impacts

- a) **Less than Significant Impact.** The Project would result in the development of a commercial solar project which will connect to the SCE substation and add to the electricity supply. The proposed GPA and REZ will increase the site’s residential density by 116 single-family dwelling units, which could result in direct population growth. Impacts from the population increase will be analyzed in the EIR.
- b) **No Impact.** The Project site is currently vacant, and will not displace any resident. In addition, operation of the solar project will generate very limited employment (for maintenance and repair only), which would be expected to be filled by existing residents, and will therefore not require additional housing. There will be no impacts associated with displacing existing population or housing, and no further discussion of this issue will be required in the EIR.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>XV. PUBLIC SERVICES</b>				
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?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	

Sources: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010); project materials.

## Environmental Setting

### Fire Protection

The San Bernardino County Fire Department (SBCFD) is responsible for fire protection within the City. SBCFD operates 67 fire stations in 24 cities and covers approximately 19,278 square miles in the County. SBCFD has a staff of about 1,017 county firefighting personnel and 654 fire suppression personnel available during each 24-hour period. The nearest fire station is Station# 44 at 6560 Adobe Road. A second fire station, Station #43 at 3834 Lear Avenue, is inactive.

### Police Protection

The San Bernardino County Sheriff's Department is responsible for law enforcement in the City. A local police station operates out of City Hall at 6135 Adobe Road. The main police station is located at 6527 White Feather Road in Joshua Tree, approximately 12 miles west of the City.

### Schools

The City and the Project area are located within the boundaries of the Morongo Unified School District (MUSD), which provides public school facilities to accommodate students. The MUSD currently operates eighteen schools within its district, which stretches beyond Twentynine Palms to Yucca Valley and Morongo Valley.

### Parks

There are a total of four existing parks (i.e. Bucklin Park, Luckie Park, Knott's Sky Park, and Veteran's Park) in the City. Pioneer Park is planned, but not yet constructed. The City's other major recreational facilities include Theatre 29, the Senior Community Center, Parks and Recreation Community Services Building, and Parks and Recreation Administration Building.

## Discussion of Impacts

### Fire Protection

**Less Than Significant Impact.** The Project will result in a commercial solar project that will not use or produce significant amounts of combustible materials. In addition, the development plans for the Project will be reviewed by the Fire Department so that they meet Fire Code, access and circulation requirements to assure that the Department can reach all parts of the Project. The GPA and REZ will increase the site's density by 116 residential units, which will marginally increase the need for fire department services at future buildout of the site. Impacts associated with fire suppression for the solar array and increased demand for future fire services are expected to be less than significant, and will be analyzed in the EIR.

### Police Protection

**Less Than Significant Impact.** The development of the proposed solar project will marginally increase the need for police services. The solar project will be unmanned, but will be fenced. The level of security to be provided is not currently known, and will be analyzed in the EIR. Impacts associated with police protection are expected to be less than significant.

The GPA and REZ will increase the site's residential density by 116 residential units, which will marginally increase the need for police services at future buildout of the site. Impacts associated with increased demand for future police services are expected to be less than significant, and will be analyzed in the EIR.

### Schools:

**Less than Significant Impact.** The Project will result in an unmanned commercial solar project. The GPA and REZ will increase the site's density by 116 residential units, which could directly increase the need for additional educational facilities. The EIR will analyze impacts associated with the density increase on educational facilities.

### Parks

**Less than Significant Impact.** The need for additional parkland is primarily based on an increase in population to an area. Given that the proposed Project would increase the site's density by 116 residential units and thus increase the population of the City, the project could potentially burden any parks in the surrounding area beyond capacity by generating additional recreational users. Impacts associated with parks are expected to be less than significant, and will be analyzed in the EIR.

### Other Public Facilities

**Less than Significant Impact.** The solar project will not negatively impact City operations, and may provide a benefit, depending on the benefits provided through the proposed Development Agreement. However, the GPA and REZ will increase the site's density by 116 units, directly increasing the City's future population. Potential impacts the increased density may have on public facilities will be analyzed in the EIR.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>XVI. RECREATION --</b>				
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?			X	
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?			X	

Sources: Google Earth; City of Twentynine Palms General Plan.

### Environmental Setting

The City of Twentynine Palms operates recreational facilities on 175 acres, including parks, special use areas and passive use areas provided by different sources including the City of Twentynine Palms, the Morongo Unified School District and the Marine Corps Air Ground Combat Center.

### Discussion of Impacts

**a, b) Less than Significant Impact.** The proposed Project does not propose the development of new residential units that would require recreation facilities; however, the GPA and REZ will increase the site’s density by 116 single-family units that may increase use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated at future site buildout. The EIR will analyze potential future impacts to recreational facilities.

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

Sources: City of Twentynine Palms General Plan; Google Earth; Technical Advisory on Evaluating Transportation Impacts in CEQA, State of California Governor’s Office of Planning and Research, December 2018.

**Environmental Setting**

The City’s Circulation Plan classifies roadways into the following types: 6-Lane Expressway, Arterial, Secondary, and Collector. Those streets not shown on the Circulation Plan are either local or rural local streets and are classified as Non-General Plan streets and are mostly unimproved dirt roads. The General Plan (2012) established a LOS “C” minimum service standard for all new streets within the city.

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which require all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (LOS) as the new measure for identifying transportation impacts for land use projects. The Governor’s Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018), and the City has adopted a VMT policy.

Transit service is provided in the City by Morongo Basin Transit. There are no bus stops or routes in the vicinity of the Project site.

**Discussion of Impacts**

- a) **Less Than Significant Impact.** The proposed solar project will not generate daily traffic. Rather, periodic and limited trips for maintenance and repair will be conducted on an as-needed basis. The solar project will not, therefore, impact General Plan level of service policies. The Project will generate construction traffic, from worker trips to and from the site, which will be analyzed in the EIR.



The proposed GPA and REZ will increase the site's net residential density, which could increase traffic at future buildout. The EIR will analyze potential impacts from this increased density and how it may affect circulation in the City.

Alternative Transportation Planning

Morongo Basin Transit Authority (MBTA) provides transit service in the Morongo Basin, including the City of Twentynine Palms. The solar project will be unmanned, and will require infrequent visits from Project employees only for maintenance and repair. These trips are not expected to be on transit services. The proposed GPA and REZ will increase the site's residential density, but does not propose changes that will conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. No project-related impact is anticipated and no further discussion of this issue is required in the EIR.

- b) **Less Than Significant Impact.** The City VMT guidelines include thresholds to screen out VMT impacts using project size, maps, transit availability, and provision of affordable housing. The EIR will analyze the Project on the basis of the City's policy. It is expected that the Project will have a less than significant impact on VMT, and this will be confirmed in the EIR's analysis.
- c) **No Impact.** The Project will result in solar panel racks in rows, with access drives between them. One access point, at Samarkand Drive (extended), will be provided onto a driveway that exits onto Two Mile Road at the southern boundary of the site. The infrequent maintenance and repair trips are not expected to increase hazards or create a dangerous intersection, because the City will condition the Project to build its access to City standards and at a 90 degree angle to Two Mile Road. No incompatible uses are proposed, and no project-related impact is anticipated. No further discussion of this issue is required in the EIR.
- d) **No Impact.** The proposed Project does not involve a use or activity that could interfere with long-term emergency response or emergency evacuation plans for the area. Project operation would not change any existing roads, including areas provided for emergency access. Prior to construction, both the Fire Department and Sheriff Department will review the Project site plan to ensure safety measures are addressed, including emergency access. While the Project will increase the site's net residential density, it will not change or interfere with long-term emergency response or emergency evacuation plans for the area.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>XVIII. TRIBAL RESOURCES--</b> Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	X			
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe	X			

Source: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010).

### Environmental Setting

As discussed in the Section V, Cultural Resources, the Mojave Desert, including the City of Twentynine Palms has been home to the Serrano and the Chemehuevi Native Americans for centuries. Today, most Serrano descendants are affiliated with the San Manuel and the Morongo Indian Reservations, while the Chemehuevi are divided among the Chemehuevi, the Colorado River, and the Morongo Reservations.

The City and surrounding areas contain significant cultural resources to the Native American people which are considered non-renewable resources because they provide important information about the past and are of high cultural value to the tribes.

### Discussion of Impacts

**a, b) Potentially Significant Impact.** The Project area occurs in an area with no currently known Tribal Resources, but such resources have been identified throughout the City. The City will conduct Tribal Consultation under the requirements of SB 18 and AB 52, and will determine the level of impact through these consultations. The EIR will address Tribal Resources and determine whether mitigation measures are required to reduce impacts to less than significant levels.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>XIX. UTILITIES AND SERVICE SYSTEMS</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?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
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?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Source: Twentynine Palms General Plan.

## Environmental Setting

### Domestic Water (please also see Hydrology and Water Resources)

The proposed Project is located within the Twentynine Palms Water District (TPWD) boundaries for domestic water services. The District's water supply source is 100 percent groundwater produced from District-owned and operated wells. The District provides water service to approximately 6,800 households in their water service area (Twentynine Palms Water District 2015 Urban Water Management Plan).

### Wastewater Treatment

The only Wastewater Treatment Plant (WWTP) in the region is located at the Marine Corps Air Ground Combat Center (MCAGCC). The City, including the Project area, does not have a sanitary sewer system and currently operates with septic tanks.

### Flood Control/Drainage

The San Bernardino County Flood Control District (SBFCD) is responsible for managing regional drainage within and in the vicinity of Twentynine Palms. The City works with SBFCD to manage local drainages in the City, which are divided between well-defined

drainage courses (some have been channelized) and areas of wide sheet flow. Development that may alter the direction of flow onsite is conditioned per standard San Bernardino County practices to maintain the existing site drainage patterns at inlets and outlets.

#### Solid Waste

Burrtec Waste Industries provides solid waste pick up and disposal, as well as recycling services in the City. Solid waste disposal and landfill siting is handled by the County of San Bernardino, Solid Waste Management Division. The Project will utilize shared trash bins for waste removal.

#### Other Utilities

The electrical energy to the City is provided by Southern California Edison (SCE). Natural gas service is provided to the City by Southern California Gas Company (SoCalGas). Telephone service is provided by a number of companies, including both land lines and cellular services.

### **Discussion of Impacts**

- a) **Less than Significant Impact.** As discussed under Hydrology, above, the unmanned commercial solar project will not require the construction of water, wastewater treatment or storm drainage facilities. It will expand electrical service for the benefit of future development in SCE's service area, but these impacts will be addressed categorically in the EIR as described in this Initial Study. The solar project will not use natural gas and will not require the expansion of this service. The solar project will require telecommunications for monitoring services, but these are available in the vicinity of the Project site. The proposed GPA and REZ will increase the site's residential density and thus increase future demand for water, wastewater treatment, electric power, natural gas, and telecommunications facilities. Therefore, the need for the expansion or relocation of utilities or service systems will be analyzed in the EIR.
- b) **Less Than Significant Impact.** The solar project will not require on-site water supplies, and proposes to use trucked-in water periodically to clean the solar arrays. The GPA and REZ will increase the site's net residential density that will increase the demand for future water services. The EIR must quantify the potential water use and assure that the Project will not impact the water supply.
- c) **No Impact.** The solar project will not require septic or sanitary sewer service, and any need for temporary service will be provided by portable toilets. There is no regional sanitary sewer service, and no treatment plant in the City. Future buildout of the site under the proposed RS-1 land use designation would be subject to the same regulations and standards relating to septic or sanitary sewer service. The Project will not impact sewer capacity, and no further discussion of this issue will be required in the EIR.

- d, e) Less Than Significant Impact.** The solar project will generate limited solid waste during construction, and also during operation for disposal of repaired or damaged components, and similar maintenance waste. The amount of waste is not currently known. The collection and disposal of solid waste will conform to applicable federal, State, and local plans and regulations, including AB 939 (Integrated Waste Management Act) that local jurisdictions divert at least 50 percent of all solid waste. It is expected the proposed Project would have a less than significant impact in terms of complying with federal, state, and local statutes and regulations related to solid waste. This issue will be analyzed, and to the extent possible quantified in the EIR.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>XX. WILDFIRE.</b> If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
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?				X
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?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

Sources: Twentynine Palms General Plan; Fire and Resources Assessment Program (FRAP) maps, California Department of Forestry and Fire Protection.

### Environmental Setting

Wildfires can occur in undeveloped areas and spread to urban areas where the landscape and structures are not designed and maintained to be ignition resistant. A wildland-urban interface is an area where urban development is located in proximity to open space or “wildland” areas. The potential for wildland fires represents a hazard where development is adjacent to open space or within close proximity to wildland fuels or designated fire severity zones.

The California Department of Forestry and Fire Protection (Cal Fire) has mapped areas of significant fire hazards in the state through its Fire and Resources Assessment Program (FRAP).

The General Plan identifies the project site as being in a Local Responsibility Area and a Moderate Fire Hazard Zone. The site is not located adjacent to forested areas, and the slopes of the hills surrounding the City do not support significant vegetation.

## Discussion of Impacts

**a)-d) No Impact.** The Project area is not located adjacent to a state responsibility area or a very high fire hazard severity zone. Because the City, including the proposed Project, is not at high risk for wildfire, it is also not at risk for spread of wildfire, or for slope instability, flooding or landslides. Finally, there is no need for installation or maintenance of infrastructure that could exacerbate fire risk. No impacts associated with wildfire will result from development of the proposed Project, and no further discussion of this issue will be required in the EIR.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
<b>XXI MANDATORY FINDINGS OF SIGNIFICANCE --</b>				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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?	X			
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)?	X			
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

### Discussion of Impacts

- a) **Potentially Significant Impact.** As described above, the proposed Project has the potential to impact biological (special status species, migratory birds and jurisdictional waters) resources. The EIR must consider these impacts and, if such impacts are determined to be significant, determine whether feasible mitigation measures are available to reduce such impacts to less than significant levels. As regards cultural resources, the Project's impacts will be analyzed, and mitigation measures are believed to be available to reduce any potential impacts to less than significant levels.
- b) **Potentially Significant Impact.** The EIR must consider the Project's cumulative impacts. When considered in the framework of General Plan build out, the Project and other projects could have significant impacts on several resource areas. The EIR will analyze cumulative impacts and determine whether mitigation measures are necessary.
- c) **Less Than Significant Impact.** As described above, the Project will not have significant impacts on human beings. Air quality and noise impacts are expected to both be less than significant, and the solar project will generate only sporadic



additional vehicle trips. However the increased residential density resulting from the GPA and REZ could potentially impact human beings, and will therefore be analyzed in the EIR.