# INITIAL STUDY FOR THE GOLD TREE SOLAR FACILITY

# Prepared for: California Polytechnic State University, San Luis Obispo

Prepared by:

SWCA Environmental Consultants 1422 Monterey Street, Suite C200 San Luis Obispo, California 93401

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#### INTRODUCTION

California Polytechnic State University, San Luis Obispo (the University or Cal Poly) proposes to retain a third-party developer to construct, operate, and decommission an approximately 18.5-acre, two to five megawatt (MW), photovoltaic solar energy facility consisting of 1,500 single axis tracking solar modules containing approximately ten solar panels per module, a new transformer, 200-square foot maintenance and storage building, perimeter security fencing, generation interconnection to an existing substation, and associated internal access, utilities, and stormwater management. While the specific design and layout of the facility has not yet been identified, this Initial Study provides a reasonable worst-case scenario regarding facility components, size, layout, height, and area of disturbance.

The project is in the conceptual phase; an Initial Study is being completed at this time to provide preliminary evaluation of the potential impacts of the project, and to identify the type of formal CEQA document which will be required for the project. The level of specificity of environmental analysis is commensurate with the level of project detail available at the time of this writing. Where practical, this Initial Study identifies measures which may help guide the development of project specifications.

# PROJECT LOCATION AND SETTING

Cal Poly is located northeast of the City of San Luis Obispo, approximately midway between San Francisco and Los Angeles on California's central coast. The university campus occupies over 6,000 acres. University lands include range and agricultural areas as well as natural preserves, in addition to more developed areas. The more developed portion of campus is identified as the "campus instructional core" and includes agricultural support facilities, and academic, housing and administrative buildings. The campus instructional core is generally bound by Highland Drive on the north, California Boulevard on the west, Slack Street on the south, and foothills on the east.

The project site is located in the northern extent of the campus, within an area defined in the Master Plan as the "Goldtree Site" within Cheda Ranch. The proposed approximately 18.5-acre solar energy facility would be constructed within an approximately 40-acre area located on the east side of Highway 1, approximately 0.5 mile north of Stenner Creek Road on the University campus. The project site currently supports livestock grazing, and is undeveloped with the exception of agricultural fencing and gates, access roads, and livestock watering troughs. Surrounding uses include the PG&E Goldtree substation and the California Men's Colony to the north; agricultural fields and orchards and the City of San Luis Obispo water treatment plant to the east; Highway 1, scattered residences, and accessory agricultural uses and vacant land to the west and southwest; and, campus agricultural fields, agricultural teaching facilities, and accessory uses to the south and southeast. The project location is shown in Figure 1.

# **PROJECT OBJECTIVES**

The project is being pursued with the following objectives:

- Consider sustainability, alternative sources, self-sufficiency, life-cycle costing, and other strategies to minimize impacts on the environment.
- Deliver cost-effective renewable energy that maximizes the use of existing transmission and generation interconnect infrastructure and relies on highly efficient, proven technology to help achieve state energy goals.
- Develop alternative, renewable energy sources to the greatest extent possible to offset growth in demand.

Figure 1. Project Vicinity

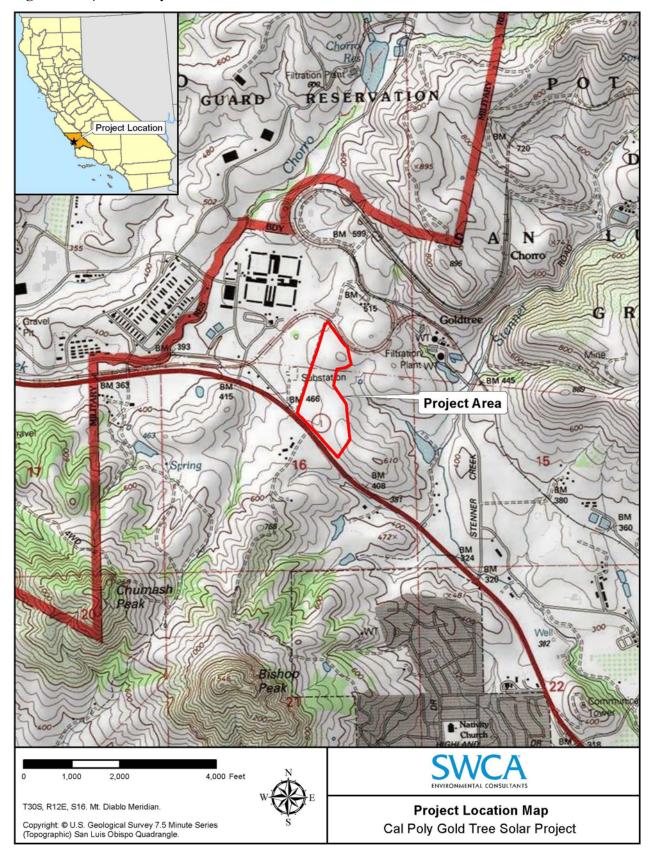
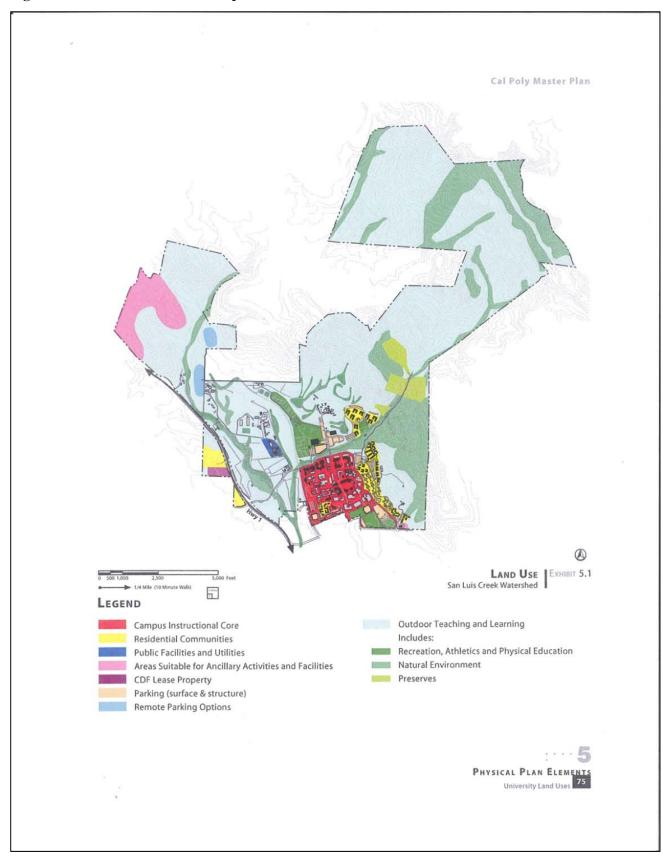


Figure 2. Master Plan Land Use Map



#### PROJECT DESCRIPTION

**Background.** The 2001 Cal Poly Master Plan is the primary document governing land use and capital improvements on campus through the year 2020. The Master Plan includes several elements which guide development on campus, including, but not limited to: Campus Instructional Core, Residential Communities, Circulation and Parking. The Master Plan establishes land uses for the entire campus, and outlines principles to guide future development. The Master Plan does not set specific standards for development. However, development pursuant to the Master Plan is conditioned by mitigation measures outlined in the Master Plan Environmental Impact Report (EIR), as applicable.

The Public Facilities and Utilities element describes the physical facilities and infrastructure required to support campus operations. A component of this element is Sustainable Campus Planning and Design. In addition to energy efficient building design and resource conservation, the Master Plan notes that "alternative, renewable energy sources should be used to the greatest extent possible to offset growth in demand", including integrated photovoltaics and solar-generated energy.

The project site is located within the Extended Campus, within Cheda Ranch, in an area identified as "Goldtree Site" in the Master Plan. Land uses identified for this area include "Areas Suitable for Ancillary Activities and Facilities" and "Outdoor Teaching and Learning" (Land Use, San Luis Creek Watershed, Exhibit 5.1). The Outdoor Teaching and Learning element identifies the variety of "living laboratories" provided on the University campus (e.g., agricultural fields and units, ecological study areas, and design village), which are central to Cal Poly's mission and must remain integrated with the campus. The project site is part of the Campus Farm sheep unit, and is currently used for rangeland and livestock grazing.

The Master Plan identifies the Goldtree area as potential remote vehicle storage and parking, possibly consolidated with an applied research park. The Master Plan envisioned that this type of facility would focus on applied research and advanced development activity in support of the University's academic mission, including applied research partnerships, incubator support for new technology, and business development. Additional facilities conceptually suggested in the Master Plan include a conference center or similar ancillary activities, ranging in size from 300,000 to 600,000 square feet. The proposed solar facility was not identified in this area at the time the Master Plan was adopted.

# **Project Components**

The proposed facility would consist of up to 1,500 single axis tracking solar modules containing approximately ten solar panels per module. Modules will be arranged in 20 to 60 rows depending upon final configuration. Each tracker module would be approximately 230 square feet in size, mounted onto a galvanized steel rack. Each tracker module would be tilted to the south, and installed at an approximate 20 degree angle in relationship to the horizontal plane, with the higher end at approximately 12 feet and the lower end at approximately 4 feet. Trackers would be mounted in the ground through foundation screws or helical piles, or rest on the ground with concrete ballasted feet. Each row of trackers would turn to follow the sun, powered by a single electric motor. One inverter enclosure and foundation is proposed for each four rows of trackers with an average of approximately 120 trackers per block. A total of up to approximately 1,500 PV panels are proposed; each panel would be approximately 42 inches tall by 82 inches wide. The panels would be made of crystalline silicon with an anti-reflective coating. During most times of day the panels will be tilted to either the east or west along the tracker's northerly axis.

Electrical energy generated by the tracker units would be gathered via a direct-current cable system laid in aboveground metal trays measuring at approximately six by six inches running the length of the tracker rows and underground trenches from the arrays to electrical equipment enclosures housing banks of inverters and a transformer. The inverter enclosures would be sized and spaced according to final design and engineering requirements with a typical metal enclosure housing two to four inverters to serve up to 1 MW (or approximately 270 trackers) of the array. The project would use 5 to 20 inverters that would be housed in inverter enclosures placed approximately ten feet above the ground.

In addition to the arrays, the project includes construction of a new transformer and a maintenance and storage building, which would house equipment and battery storage. The maintenance and storage building would be located near the existing power lines and northern fence (property boundary), and would consist of an approximately 200-square foot "c-train"-type structure, approximately ten feet in height. The proposed project would include 6-foot tall wood or metal post and barbed wire security fencing surrounding the perimeter of the facility and maintenance and storage structure. Locked gates equipped with "KNOX boxes" for emergency responder access would further secure the facility. Motion-sensor security lighting is proposed at the maintenance and storage structures, consisting of six 24-foot tall poles and shielded light fixtures.

The proposed project would include a generation interconnection to the existing Pacific Gas & Electric (PG&E) Gold Tree substation, located approximately 200 feet north of the project site. There are existing power lines traversing the project site leading to the substation. The following options are currently identified for connection to the substation: 1) the project may tie into the existing 12 kilovolt (kV) or 70 kV lines with "T-tap" cut-outs; 2) the project may include the construction of a new overhead line and new cross arms; or 3) the project may include the construction of new poles, lines, and three conductors.

The site would be accessed via an existing ranch road extending from Highway 1, and internal 24-feet wide unpaved, decomposed granite access roads within the arrays. During construction, access roads would be treated with Air Pollution Control District-approved chemical soil stabilizer. During operation, these roads would be used for periodic maintenance and bi-annual panel washing. The project includes the planting, establishment, and maintenance of approximately 1 acre of landscaping located along Highway 1 and consisting of native vegetation that will reach a height of six to 8 feet.

#### **Construction**

While the footprint of the final project may be less than 20 acres, construction of the proposed project is anticipated to require up to approximately 40 acres of disturbance. At this time, no mass grading, substantial alterations to the existing topography, or hauling of excess fill or import of clean fill are proposed. Construction of the project is estimated to occur the following phases:

- 1. Site preparation, including vegetation removal, occurring over approximately 2 weeks, and resulting in approximately 5 to 10 construction round trips per day, in addition to approximately 20 haul round trips;
- 2. Site grading, including internal access road construction occurring over approximately 2 weeks, and resulting in approximately 10 to 20 construction round trips per day, in addition to approximately 40 haul round trips;
- 3. Construction of the solar arrays, generation interconnect, structures, and fencing occurring over approximately 8 weeks, resulting in approximately 20 to 30 construction round trips per day, in addition to approximately 80 haul round trips.

The construction phase includes a temporary covered assembly area (for tracker assembly) and a concrete washout area (approximately 150 square feet in size) for foundations for the maintenance/storage building, tracker motors, transformer, and inverters. The University will implement sedimentation and erosion control measures in addition to a Regional Water Quality Control Board-approved Stormwater Pollution Prevention Plan. The sedimentation and erosion control plan will include typical devices including straw wattles, check dams, fabric blankets, and silt fencing. All erosion control materials will be biodegradable and natural fiber. Long-term drainage and stormwater management plans have not yet been developed. Water for dust suppression would be supplied by the University, and is anticipated to result in a demand of 1 acre-foot during the 2-month construction period. Drinking water and portable toilets are anticipated to be provided by the construction manager.

#### **Operation**

The proposed project would not require any potable water or sewer connections. The facility would be unmanned. Maintenance would occur up to once a month, resulting in approximately 1-2 operational trips per month. Operational water would be provided by existing water hydrants on campus, and transported to the project site via water trucks and would be used for panel washing approximately twice a year (approximately .07 acre feet per year), resulting in approximately 8 operational trips per annual washing. Additional water demand

would include approximately 1-5 acre feet per year to irrigate landscape screening, until established. The existing infrastructure that provides non-potable water to livestock watering troughs would be used to establish the vegetation. Therefore, the total anticipated operational water demand in the short-term would be approximately 6 acre feet per year, long-term demand would be 1 acre foot per year.

The University would implement an Integrated Pest Management Plan, which may include the following: weed control, including use of native ground cover, livestock grazing to control grasses, manual harvest, and use of herbicides if necessary; vegetative management for fuel load reduction; and, insect, pest, and disease management including manual trapping of vertebrate pests, eradication, use of Environmental Protection Agency (EPA)-approved rodenticides.

# **Decommissioning**

The project includes de-commissioning the facility and reclamation of the site. The 40-day decommissioning process will include removal of all facility elements, including but not limited to: solar panels, trackers, racking, posts, electrical equipment, underground conduits and cables, concrete pads, fences, security lighting, and access road gravels. No grading is proposed. Reclamation (20-day duration) will include evaluation of adjacent grasses and vegetation, soil preparation, temporary irrigation, seed/crop/vegetation planting, and watering and fertilization (if necessary).

#### PURPOSE OF THE INITIAL STUDY

An initial study is an informational document used in planning and decision making. The initial study is not intended to recommend approval or denial of the project. The Trustees have prepared this initial study to determine if the project would have a significant effect on the environment. The purposes of the initial study are to:

- Provide the lead agency with information to use in deciding whether to prepare an EIR or negative declaration;
- Enable the lead agency to modify the project to avoid adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a negative declaration;
- Document the factual basis for the finding, in a negative declaration, that a project will not have a significant impact on the environment.

#### APPLICABLE REGULATIONS

The current Cal Poly Master Plan provides the framework for planning and policy guidance for development on campus. The Master Plan EIR includes mitigation applicable to development on campus. Master Plan mitigation measures are incorporated into the project description, and are updated where noted. Other, site-specific mitigation is recommended in this document which clarifies measures adopted as part of the Master Plan EIR. The project does not increase current enrollment projected in the Master Plan. Where the project is consistent with the Master Plan and no new substantive information exists, this is noted and analysis references the Master Plan and Master Plan EIR documents.

**NPDES Phase II Regulations (Non-point Source Stormwater Pollution Prevention).** The project encompasses an area more than one acre in size; a Stormwater Pollution Prevention Plan (SWPPP) will be prepared for the project pursuant to the approval of the Regional Water Quality Control Board (RWQCB). The SWPPP will outline site management practices for site preparation, construction, and post-construction phases of the project.

#### INITIAL STUDY ENVIRONMENTAL CHECKLIST

This section discusses potential environmental impacts associated with approval of the proposed project.

# **Required Information**

**Project Title**: Gold Tree Solar Facility

**Lead Agency**: California State University Board of Trustees

401 Golden Shore

Long Beach, CA 90802-4210

Contact Person: Joel Neel

Facilities Planning and Capital Projects

Building 70

Cal Poly State University San Luis Obispo, CA 93407

(805) 756-2193

Project Location: Cheda Ranch, east side of Highway 1, approximately 0.5 mile north of Stenner Creek

Road, Cal Poly State University, San Luis Obispo

**Project Sponsor**: Facilities Planning, Cal Poly Corporation

**Master Plan Designation**: Goldtree Site within Cheda Ranch; Areas Suitable for Ancillary Activities and Facilities and Outdoor Teaching and Learning

**Project Description:** Construct, operate, and decommission an approximately 20-acre, two to five megawatt, photovoltaic solar energy facility consisting of 1,500 single axis tracking solar modules containing approximately ten solar panels per module, a new transformer, 200-square foot maintenance and storage building, perimeter security fencing, generation interconnection to an existing substation, and associated internal access, utilities, and stormwater management.

**Surrounding Land Uses and Setting:** Surrounding land uses include: the California Men's Colony (state prison) to the northwest; agricultural uses to the northeast, east, and southeast; Highway 1, agricultural uses, scattered residences, and vacant land to the northwest, west, and southwest.

# California State University (CSU) and Other Public Agencies whose approval will be sought:

California State University: Approval of schematic plans and related actions; Regional Water Quality Control Board; County of San Luis Obispo Air Pollution Control District; and, others as may be necessary.

# **CEQA Guidance**

Appendix G of the State CEQA Guidelines was used in answering the checklist questions:

- 1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the discussion. A "No Impact" answer is adequately supported if the discussion shows 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 when 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 offsite as well as onsite, 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, 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 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 (State CEQA Guidelines Section 15063[c][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

Identification of the potential for residual significant adverse environmental impacts would trigger the need for preparation of an EIR. For issue areas in which no significant adverse impact would result or impacts would be reduced to a less-than-significant level by mitigation, further analysis is not required.

		Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact with Mitigation Incorporated	Less Than Significant New or Increased Impact	or
I.		AESTHETICS				
	Wo	ould the proposal:				
	a.	Have a substantial adverse effect on a scenic vista?		X		
	b.	Substantially damage scenic resources, including, but not limited to, tree, rock outcroppings, and historic buildings within a scenic state highway?		X		
	c.	Substantially degrade the existing visual character or quality of the site and its surroundings?		X		
	d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in this area?		X		

# **Background**

The proposed project is located within the northern extent of the Cal Poly campus, adjacent to Highway 1, within the highly scenic Chorro Valley. Highway 1 through the Chorro Valley and continuing north to the city of Monterey in Monterey County is both a Designated State Scenic Highway and an All-American Road in the National Scenic Byway system. Each of these designations indicates a high degree of scenic quality within the highway's view corridor.

The Chorro Valley is generally defined by the Santa Lucia hills and the Cuesta Ridge to the northeast, and the Morros, a series of distinct mountain peaks rising up from the valley to the southwest. The regional natural visual setting is comprised of dramatic topography and mountain peaks, rock outcroppings, dense stands of oak woodland on scenic hillsides, occasional stands of eucalyptus trees and pine trees, vegetated creek and drainage corridors, annual grassland, and shrubs. Rural development includes agricultural crops, orchards, equestrian and livestock grazing, and associated agricultural structures. The region is mostly rural; however, development and associated introduced landscaping can be seen in the vicinity of the project site and throughout the valley. The most visible developments along the highway include the University's core and extended campus, Cuesta College, Camp San Luis Obispo, the County Sheriff facility, the California Men's Colony, the County Office of Education, a gun club and shooting range, Dairy Creek Golf Course, and El Chorro Regional Park. Residences can be seen on the hillsides closer to San Luis Obispo and within a private rural residential community (Rancho Caballo) on the west side of Highway 1. Each of these developments are located along Highway 1 within the valley floor, and although they are mostly large in size, the adjacent mountain peaks rising up behind them tend to dominate the views and define the scenic character.

The topography of the 40-acre project site is mildly to moderately sloping, ranging in elevation from 480 feet at the northwest and southwest corners to approximately 550 feet at the southeast corner. The area is predominantly used for livestock grazing, and low, ruderal grasses are the predominant ground cover. Grazed grassland continues east onto the adjacent parcel, and avocado orchards abut the project site to the northeast. Scattered native shrubs are located along the southern perimeter of the site along the highway right-of-way. The project site is bounded on the northern, western and southern boundaries by post and wire fencing, and the eastern boundary is not continuously fenced. Cross-fencing of various types is seen throughout the site. A water storage tank and livestock troughs are located near the center of the parcel. Wooden power poles cross the site from the west to the east.

Surrounding land uses include the California Men's Colony 0.2 mile to the northwest; orchards and rangeland to the north and east; the PG&E Goldtree Substation and vacant field to the northwest; and an equestrian boarding

facility to the southwest (across Highway 1). The Union Pacific Railroad (UPRR) tracks can be seen approximately 0.3 mile north of the project site.

The project site contributes to the high visual quality of the Highway 1 corridor approaching San Luis Obispo and Cal Poly. As seen from both north and southbound directions of Highway 1, the eastern portion of the project site serves as part of the primary ridgeline to the north. The varied topography of site increases its noticeability and influence on the visual quality of the corridor. The pastoral land use visually supports the agricultural and rural history of the County and of Cal Poly.

**Project Visibility.** The project would be visible from several public viewpoints in the surrounding area including Highway 1, the UPRR tracks, and dedicated open space and recreation trails as follows:

Highway 1 Southbound. Travelling southbound on Highway 1, the project would be visible to some degree for approximately 1.2 miles. The project would first come into view at a distance of approximately 1.1 miles, and would be seen almost directly ahead of the viewer. From this viewing distance, the project would occupy a small percentage of the overall viewshed, and would be seen in the context of Camp San Luis and the Men's Colony, as well as the open space and rural landscape of the Chorro Valley. As seen from this viewing location, existing trees in the distance partially block views of the project site. Continuing in the southbound direction, the project would become increasingly visible directly ahead. The Men's Colony would also become more noticeable to the north, and intervening trees would continue to filter views of a portion of the project site. Near the entrance of the Men's Colony, existing trees and other vegetation in the mid-ground generally block visibility of the project site; this vegetation would continue to block views of much of the project site until a point approximately 500 feet north of the project access road, near the project boundary. It should be noted that although the trees in this area currently provide effective screening from this section of Highway 1, several of the trees are dead or in declining health. Continuing loss of these trees would substantially increase views to the project. Approaching Goldfield Road in the southbound direction, little to no intervening vegetation or topography would provide visual screening of the project. From this close vantage point the viewer would clearly see the project occupying the rolling hills in the foreground to the northwest. Continuing southbound along Highway 1, the project would remain visible until the viewer passed the site. The total duration of visibility along southbound Highway 1 would be approximately 60 seconds for motor vehicles travelling at the posted speed limit. An average of 24,500 vehicles pass by the project site each day (Caltrans 2014). Bicyclists travelling at a speed of 15 miles per hour could potentially have views of the project for five minutes.

Highway 1 Northbound. Travelling in the northbound direction, intervening topography would blocks views of the project until a point nearly perpendicular to the site. Once visible, the project would be seen along an approximately 0.3 mile section of the highway, with a viewing duration of approximately 15 seconds at the posted speed limit. From this northbound viewpoint, the closest project element would be seen at a distance of approximately 300 feet away. Continuing northbound the viewer would pass the site at Goldtree road and the project would not be within the primary viewshed.

Union Pacific RailHighway 1road Tracks. The UPRR tracks are located approximately 0.3 mile north of the project site. From this slightly elevated vantage point the project would be easily seen by Amtrak travelers. Views from the tracks toward the project include orchards, grazing land and a ranch house in the foreground, the project site and Highway 1 in the mid-ground, and the picturesque Morros as a backdrop. The visual context north of the project site includes the Men's Colony and an electrical substation. Along the tracks to the east, the City's water treatment plant can be seen among orchards. The project would be potentially visible to rail travelers along an approximately 0.3 mile section of the track as it curves down the hillside from Cuesta Ridge.

Bishop Peak. The project site can be easily seen from sections of the public recreation trails throughout Bishop Peak and the Bishop Peak Natural Preserve. Because of the elevated viewing position of these viewpoints, the project would be visible in the context of the greater Chorro Valley, including the highly scenic Morros and variety of topographic and natural vegetative elements. The viewshed also includes the overall patterns of land use development within the City of San Luis Obispo, Cal Poly, the California Men's Colony, Camp San Luis, and others. From Bishop Peak, the project would be seen at a viewing distance of approximately 1 mile. Although visible, because of the panoramic viewshed, the project would occupy a relatively small percentage of the overall scenery.

Other Viewpoints. The project would also be seen from other viewpoints throughout the area. Paseo de Caballo, a local roadway, connects to Highway 1 directly across from the site. Although relatively few people use this gated road, it would provide direct views of the project. The project would also be visible from a few scattered ranches and residences in the area, as well as portions of the University and the Men's Colony.

# **Discussion of Checklist Answers**

a. Scenic vistas are generally defined as high-quality views displaying good aesthetic and compositional value that can be seen from public viewpoints. If the project substantially degrades the scenic landscape as viewed from public roads, or in particular designated scenic routes, or from other public or recreation areas, this would be considered a potentially significant impact on the scenic vista. Scenic vistas associated with the project area include views of the Morros, the Santa Lucia Mountains and foothills, Cuesta Ridge, important rock outcroppings, patterns of natural vegetation, and predominant pastoral land.

As seen from Highway 1, the Union Pacific Railroad tracks, and other public viewpoints, the project would not block or reduce existing views of the Morros, Santa Lucia foothills, or other important landforms because of the somewhat lower general elevation of much of the project site. The southernmost portion of the project site is either below or at the elevation of the highway. The tallest point of the photo-voltaic panel arrays would be approximately 12 to 18 feet above the ground plane, depending on the existing slope-angle. In addition, the closest public viewing distance to the project would be approximately 300 feet from Highway 1. The hills lining the Chorro Valley reach elevations ranging from approximately 1,200 to 2,400 feet. The combination of these viewing factors would result in the project having little to no blockage of views to the dominant hills rising up in the background.

The eastern portion of the project site is approximately 520 feet in elevation, which is above the elevation of the closest viewpoint on Highway 1 (approximately 490 feet in elevation). Photo-voltaic arrays placed within this eastern portion of the project site would cause a slight blockage of views to the lowest portion of the intermediate hills as seen from a limited segment of Highway 1. The various project elements such as the photo-voltaic panel arrays, fencing, equipment building and other features would be clearly visible from public viewpoints, however they would not silhouette above the primary horizon line in any direction.

Although the overall views of the background hills would remain mostly intact, the project would dominate the foreground views to the Santa Lucia Mountains, Cuesta Ridge, Bishop Peak, and associated scenic vistas as seen from public viewpoints including Highway 1 and the Union Pacific Railroad (Amtrak), and would therefore result in a degradation of the scenic vista's compositional value, causing potentially significant, direct, long and short-term impacts to scenic vistas in the area.

Implementation of mitigation measures identified below would result in a project less visually intrusive on the foreground context of scenic vistas in the area by visually screening the facility as much as possible, minimizing visual clutter, and by reducing noticeability of the project elements that may not be able to be screened. It is expected that the vegetative screen planting would take between five to ten years to provide effective screening. Until the time that the screen planting became effective, measures MM-2 through MM-5 would make the project less visually contrasting with the natural setting. The combined effect of these measures would result in impacts to scenic vistas to be considered significant but mitigable.

b. Highway 1 is an Officially Designated Scenic Highway and "All-American Road" in the National Scenic Byway program. This designation recognizes the visual characteristics of the Highway 1 corridor as being among the highest quality in the nation. These designations illustrate the highest level of concern and viewer sensitivity for aesthetics along the highway corridor, the project site, and beyond. A scenic resource is a specific feature or element with a high degree of memorability or landmark characteristics that contributes to the high visual quality of the corridor. Along Highway 1, the Morros, Cuesta Ridge, unique rock outcroppings, significant groupings of trees, and certain old ranch buildings are considered the primary scenic resources. The project would result in a significant impact if it were to damage or have a substantial negative effect on views of any of those specific resources.

Although the various project elements such as the photo-voltaic panel arrays, fencing, equipment building, and other features would be clearly visible from Highway 1, they would not directly block views of the

Morros, unique rock outcroppings, significant groupings of trees, or any historic-looking ranch buildings. The photo-voltaic arrays would partially block views of a rock outcropping located within the northern portion of the project site, but those rocks are not visually unique or sufficiently noticeable to be considered a scenic resource per this CEQA threshold. Direct views of the surrounding hills and other scenic resources would be largely unaffected; however, the project would occupy the foreground context for those views and would result in a reduction in the compositional value of the scenic resource setting. The proposed project would occupy and change the foreground of views to the Santa Lucia Mountains, Cuesta Ridge and Bishop's Peak as seen from Highway 1, a State Scenic Highway. As a result, the project would cause potentially significant direct long and short-term impacts to views of scenic vistas as seen from a State Scenic Highway.

Based on implementation of mitigation measures identified below, which would visually screen the facility as much as possible, and would reduce noticeability of the project elements that may not be able to be screened, the project would be less visually intrusive on the foreground context of scenic vistas in the area. Implementation of these measures would minimize the project's effect on the visual setting associated with identified scenic resources, and as a result, visual impacts to scenic resources as seen from Highway 1 would be considered significant but mitigable.

c. The visual character of the project site and its surroundings is defined by the balance of built and natural elements. Much of the visual setting of the area is established by the combination of the dramatic topography and mountain peaks along with the existing vegetative patterns. The Highway 1 corridor between San Luis Obispo and the City of Morro Bay is mostly rural; however, development can be seen in the vicinity of the project site and throughout the valley. Although these developments are generally visible from the highway, the adjacent hills and mountain peaks rising up behind them tend to dominate the views and define the scenic character. Currently the main character-defining features of the project site as seen from Highway 1 include: open space; agricultural grazing land use; and undulating topography. The main character-defining features of the project site's surroundings include: open space; agriculture (e.g. orchards and other crops, livestock grazing, equestrian use); the Morros, Santa Lucia mountains and foothills, and Cuesta Ridge; scattered ranch houses and farm buildings; native vegetation patterns; the Men's Colony; and the electrical substation and associated overhead utilities.

The primary scenic value of the project site is that it provides a pastoral-agriculture foreground and midground to the dramatic hillside backdrop of the Morros and Santa Lucia mountains. It is highly visible from southbound Highway 1, and supports the open space character and agricultural heritage valued by Cal Poly, San Luis Obispo County, and the City of San Luis Obispo. Although other utilitarian and industrial-type development is present along the Highway 1 corridor and in the project vicinity, much of that development is set back from the highway or screened, and is visually subordinate to the rural and natural character of the overall landscape. The Men's Colony and other institutional development in the area, although visible, do not dominate the visual character of the corridor, nor do they set the aesthetic standard for proposed development along the route.

Even though the project would be set back approximately 300 feet away from Highway 1, it would be highly noticeable because of the distinctive forms of its elements and its unique purpose. Memorability would also be increased because of the site's undulating topography. The photo-voltaic arrays would be seen following the rolling landscape and rising up at the northern portion of the site. This combined noticeability and memorability would draw attention to the project and would increase its industrial influence on the rural character of the site and area. Introducing approximately 18.5 acres of an industrial utility to this pastoral site would permanently alter the visual character of not only the site itself, but it would also the reduce the visual quality of this identified community gateway area. The presence of a solar facility at this location would be visually notable because of its unique appearance and proximity to the highway, and as a result it would likely increase noticeability of the Men's Colony and sub-station located immediately to the west.

The project includes screen planting along the Highway 1 frontage, consisting of approximately one acre of native vegetation, reaching a maximum height of six to eight feet. The effectiveness of this screening would depend on the specific planting location, configuration, density, species and other factors including future mandated water restrictions during extended drought conditions. In addition, planting along the project's Highway frontage would offer no screening benefit for southbound viewpoints that would include solar

panels extending approximately 1,700 feet north along Gold Tree Road. The project includes 6-foot tall wood or metal post and barbed-wire security fencing surrounding the perimeter of the facility and maintenance and storage structure. Visibility of this type of fencing would reinforce the industrial character of the site and would contribute to the degradation the site's visual quality. Barbed-wire security fencing which is commonly seen at the Men's Colony would visually tie the project with the correctional facility and could contribute to a perception that the two facilities are one large industrial use. New power poles and overhead lines associated with the project would add to the visual clutter of the site and play a part in the overall loss of visual character. The proposed seatrain type equipment enclosure would further reinforce the industrial look of the project.

The project would cause a noticeable change to the visual character of the site and its surroundings due to the inherent change from pastoral open space to an industrial utility facility. As a result, the project would cause potentially significant direct long and short-term impacts to the visual character of the site and its surroundings. Implementation of identified mitigation measures (AES-1 through AES-5) would reduce potential impacts to the visual character of the site and its surroundings by visually screening the facility as much as possible, and by reducing noticeability of the project elements that may not be able to be screened. Until the time that the screen planting becomes effective, measures AES-2 through AES-5 would make the project less visually contrasting with the existing setting. Implementation of these measures would reduce impacts by minimizing the project's effect on the visual setting associated with identified scenic resources. As a result, visual impacts to scenic resources as seen from Highway 1 would be considered significant but mitigable.

d. The project would result in a significant impact if it subjects public viewing locations to a substantial amount of point-source lighting visibility at night, or if project illumination results in a noticeable spillover effect into the nighttime sky, increasing the ambient light over the region. The height and placement of lighting, source of illumination, and fixture types combined with viewer locations, adjacent reflective elements, and atmospheric conditions can affect the degree of change to nighttime views. If the project results in direct visibility of a substantial number of lighting sources, or allows a substantial amount of light to project toward the sky, significant impacts on nighttime views and aesthetic character would result.

Motion-sensor security lighting is proposed at the maintenance and storage structures, consisting of six 24-foot tall poles and shielded light fixtures. These fixtures would introduce a new source of lighting onto the site. Twenty-four foot tall light poles would increase lighting noticeability from Highway 1 and the surrounding area. Although there are currently no night lights on the project site, dark skies in the area are currently affected by the extensive security and other lighting associated with the nearby Men's Colony. As a result the ambient light level in the area would likely not change substantially; however, the introduction of lights onto this currently dark site would be a night-time visual indicator of development where none presently exists, resulting in a potentially significant, direct, long-term impact to nighttime views. Lighting design for the site will be subject to mitigation outlined in the Master Plan EIR, which generally requires shielding and down-casting of light, in addition to minimization of spillover to off-campus areas.

The project includes the use of non-glare coating on the photo-voltaic panel faces, which would minimize glare from these components. The frames, racks, supports, stands, brackets, tracking apparatus, connectors, rods, equipment housings and other elements will be metal; as a result, there is a high potential for some number of these thousands of visible metal components to create glare or glint seen from off-site locations, resulting in potentially significant direct long and short-term impacts.

Implementation of identified mitigation measures would minimize potential glare and lighting trespass impacts as seen from the surrounding area. As a result, visual impacts based on new source of light or glare would be considered significant but mitigable.

# **Mitigation Measures**

To ensure operational lighting and visual impacts are reduced to a level that is less than significant, Mitigation Measures (MMs) AES-1, AES-2, and AES-3 are provided in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001):

MM AES-1: Lighting and Glare – All exterior lighting shall be hooded. No unobstructed beam of light shall be directed toward sensitive uses. The use of reflective materials in all structures shall be minimized (e.g., metal roofing, expanses of reflective glass on west-facing walls). All lights must be shielded to avoid glare and spillover onto adjacent areas and onto public right of way areas.

MM AES-2 Contractors at the Goldtree [facility] will locate stockpiling and staging areas out of view where feasible.

MM AES-3 If the proposed facilities lie within 100 feet of Highway 1, the Goldtree facility will comply with County Guidelines for design near scenic highways [Note: development footprint is over 100 feet from the edge of Highway 1 to mitigate for visual and biological impacts]. In any case, the University shall consult with the County regarding reduction of visual impacts to sensitive areas such as the Highway 1 corridor.

In addition to the amended Master Plan mitigation identified above, the following mitigation measures are recommended:

- AES-1 Screen Planting: The project shall include vegetative screen planting as shown in the conceptual Vegetative Screening Concept Plan (SWCA 2015a), and the following:
  - a. Only plants native to the central coast of California shall be used. Trees and shrubs shall be planted in random appearing patterns that imitate the character of the surrounding natural vegetated landscape. Plantings shall "feather out" at the perimeters to visually transition from the more dense slope planting to the surrounding landscape. Screen planting shall achieve a minimum 70 percent screening of the project as seen from Highway 1 within ten years of completion of construction.
  - b. A minimum of 50 percent of the plants shall be trees. Tree species shall reach a minimum height of 20-feet at maturity. Trees shall be from a minimum 15-gallon container size.
  - c. Trees shall be planted in random-appearing groupings so not to visually "wall-off" distant views along Highway 1.
  - d. Trees and shrubs within the screen planting area shall be maintained in for the life of the project. Trees and shrubs within the screen planting area which die shall be replaced.
- AES-2 Fencing: All fencing for the project shall conform to the following:
  - a. Fencing shall be placed as close to the perimeter of the photo-voltaic array layout as possible and as far from Highway 1 as possible.
  - b. Perimeter fencing facing Highway 1 shall be placed as far from Highway 1 as physically possible.
  - c. No security fencing shall be placed outside of the screen planting along Highway 1 or Goldtree Road.
  - d. Barbed-wire shall not be used.
  - e. All metal components of all fencing shall be either black vinyl coated or darkened by acid-etching.
- AES-3 Photovoltaic Arrays and Associated Elements: All frames, racks, supports, stands, brackets, tracking apparatus, connectors, rods, motor and equipment cabinets, and other metal components shall be darkened by painting, powder-coating, anodizing, acid etching or other methods to reduce reflectivity and visually recede. Elements shall be darkened to near-black or a dark-grey.
- AES-4 Equipment Building: The exterior of the equipment building shall be painted a dark earth-tone color to reduce reflectivity and noticeability.
- AES-5 Lighting: New security lighting included in the project shall conform to the following:

- a. Light poles shall not exceed twelve feet in height.
- b. The point source of all exterior lighting shall be shielded from off-site views.
- c. Light trespass shall be minimized by directing light downward and utilizing cut-off fixtures or shields.
- d. Lumination from exterior lights shall be the lowest level allowed by public safety standards.
- e. Exterior lighting shall be designed to not focus illumination onto exterior walls.

#### Conclusion

The project will alter the existing visual environment in the area, including views seen from Highway 1. The project would impact the visual foreground, and change the visual character of the site from agricultural to industrial. The project addresses these issues by incorporating a visual buffer and landscape screening into the project, and additional implementing mitigation including supplemental vegetative screening, light and glare minimization measures, and fencing standards. Based on the project design and implementation of identified mitigation measures, potentially significant impacts would be mitigated to less than significant.

	Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact with Mitigation Incorporated	Less Than Significant New or Increased Impact	or
II.	AGRICULTURE AND FORESTRY RESOURCES				
	In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) 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:				
	<del>-</del>				
	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		

# Background

As noted in the Master Plan, the 60-acre "Goldtree Site" within Cheda Ranch was determined to be most suitable for development based on soil type, slope, and current condition. The Master Plan land use map identifies this area for ancillary activities and facilities. Preliminary concepts for the Goldtree area explored in the Master Plan included an applied research park, conference center, or similar ancillary activities, and considered a development area ranging between 300,000 and 600,000 square feet (6.88 to 13.77 acres). Proposed build-out of the Master Plan, including identified conceptual development within the Goldtree area, would result in the conversion of approximately 100 acres of grazed land, which represented approximately 1.5 percent of the University's total agricultural land (Cal Poly 2001). The Final EIR for the Master Plan identified a less than significant (Class III) impact to agricultural resources as a result of the grazed land conversion, because prime farmland would be avoided.

There are six underlying soil units within the project area (refer to Table 1 below). The project site is a part of Cheda Ranch, and is currently used for sheep grazing. No irrigation or irrigated crops are present. The site is fully fenced and gated for livestock management. The project site and adjacent parcels are not under Williamson Act contract.

Table 1. Soil Units within Proposed Development Area

Soil Map Unit	Class (irrigated/non-irrigated)	Storie Index	Acreage within PV development area
129 – Diablo clay, 5-9 % slopes	2e / 3e	Grade 3 – Fair	0.7
130 – Diablo and Cibo clays 9-15 % slopes	3e / 3e	Grade 3 – Fair	0.0
147- Lodo clay loam 5-15 % slopes	4e / 4e	Grade 4 – Poor	12.6
148 Lodo clay loam, 15-30 % slopes	4e / 4e	Grade 5 – Very Poor	0.0
162 Los Osos-Diablo complex, 5-9 % slopes	Los Osos: 3e / 3e Diablo: 2e / 3e	Grade 2 – Good	5.1
163 Los Osos-Diablo complex, 9-15 % slopes	Los Osos: 4e / 4e Diablo: 3e / 3e	Grade 2 - Good	0.2
	•		18.5

Source: NRCS 2016

#### **Discussion of Checklist Answers**

a. Based on review of the San Luis Obispo County Important Farmland map (Department of Conservation, 2013), the following farmland designations are applied to the project site: Grazing (19.24 acres); Farmland of Local Potential (17.71 acres); Unique Farmland (0.17 acres); and Other Land (2.24 acres) (refer to Photovoltaic Panel Area shown in Figure 3, below). Definitions of these designations are presented below:

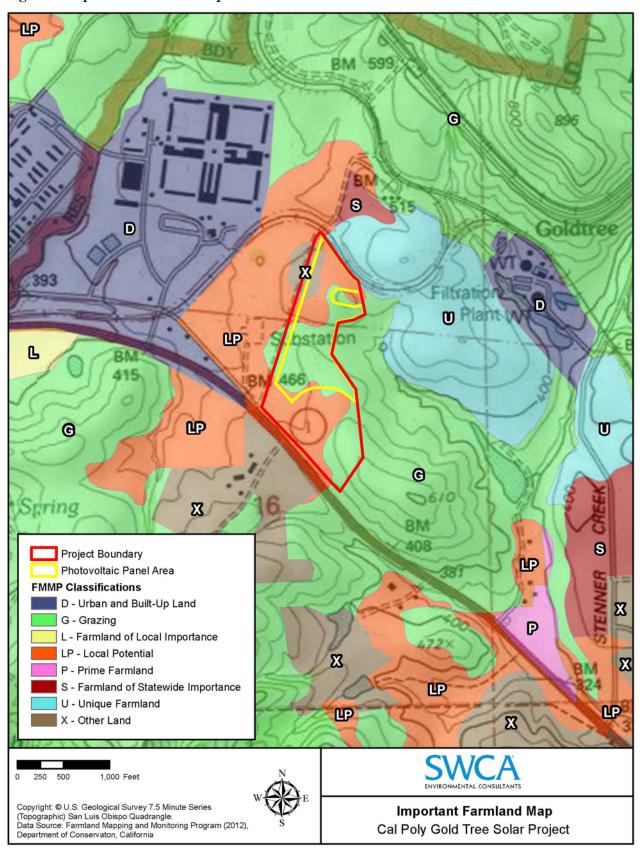
Grazing. Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

Farmland of Local Potential. In San Luis Obispo County, Farmland of Local Potential is defined as lands having the potential for farmland, which have Prime or Statewide characteristics and are not cultivated.

Unique Farmland. Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

Other Land. Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

Figure 3. Important Farmland Map



As shown in Figure 3, Unique Farmland is present along the northern boundary of the project area. This Farmland currently supports orchards (outside of the project site) and a perimeter agricultural road. Proposed development along the northern boundary of the project site would include construction of a security fence and potential improvement of the northern perimeter road for maintenance and emergency access. The project would not directly affect existing orchards, and would therefore not result in the conversion of this Unique Farmland to a non-agricultural use. Therefore, potential impacts would be less than significant.

b, e. The project site is not subject to a Williamson Act contract; therefore, no conflict with a Williamson Act contract would occur. The project area is located within the Extended Campus, within Cheda Ranch. Land uses identified for this area include "Areas Suitable for Ancillary Activities and Facilities" and "Outdoor Teaching and Learning" (refer to Figure 2, Land Use, San Luis Creek Watershed, Exhibit 5.1). The Outdoor Teaching and Learning element identifies the variety of "living laboratories" provided on the University campus (e.g., agricultural fields and units, ecological study areas, and design village), which are central to Cal Poly's mission and must remain integrated with the campus. The project site is part of the Campus Farm sheep unit, and is currently used for rangeland and livestock grazing. As noted above (see Background) and as shown in Figure 2, the Master Plan anticipated potential development of the "Goldtree site", which includes the proposed development area. Therefore, the proposed project is generally consistent with the land use plan for the campus.. Therefore, the proposed project would not conflict with the proposed land use plan, and potential impacts would be less than significant.

Implementation of the proposed project would result in the conversion of land currently used by the University for livestock grazing, for the life of the project. Upon decommissioning, the site would be restored and returned to its current use. The Campus Farm sheep unit conducts rotated grazing of approximately 140 head of sheep on approximately 140 acres of Cheda Ranch, including the 20-acre project development site. In addition to continued grazing on the remainder of the Cheda Ranch to remain undeveloped, continued managed grazing by sheep or goats would be used to control vegetation within the solar panel array area, and may provide a teaching opportunity related to the integration of solar energy facilities and livestock grazing. Operation of the facility would not result in any conditions that would significantly impair the existing sheep unit or result in a land use incompatibility or nuisance that may trigger conversion of agricultural lands outside of the project site.

During construction, potential impacts to adjacent agricultural areas include generation of fugitive dust, pollution of surface and sub-surface waters as a result of sedimentation and accidental spills or leaks from construction equipment, potential improper use of herbicides, and risk of fire). Compliance with existing regulations (i.e. preparation of a SWPPP) and identified mitigation would address these potential impacts (refer to Section III Air Quality, Section VI Geology and Soils, Section VIII Hazards and Hazardous Materials, and Section IX Hydrology and Water Quality). Therefore, potential impacts would be mitigated to less than significant.

c, d. The project site does not support forest land or timber production; therefore, no impact would occur.

# **Mitigation Measures**

MM AIR-1 (Dust Control); HM-1 through HM-5 (Hazardous Materials Spill, Leak, Exposure and Fire Risk Minimization); HYD-1 through HYD-5 (Protection of Water Quality)

AG-1 Prior to operation of the solar facility, in coordination with the Campus Farm sheep unit, the University shall develop a managed livestock grazing plan for sheep and goats. The plan shall identify the timing and location of livestock grazing both within the solar facility and proximate vegetation screening area and biological mitigation area(s). The plan shall address and remedy any potential livestock safety issues, procedures to ensure proper fencing and containment at all times, and communication protocol. The plan shall be implemented throughout the life of the project, and updated as necessary based on consultation with the Campus Farm sheep unit.

# Conclusion

Although the project would change the existing dominant use of the project site from sheep grazing to a solar facility, the University would accommodate sheep grazing within the facility pursuant to a managed livestock grazing plan prepared in coordination with the Campus Farm sheep unit. In addition, the remainder of the Cheda Ranch would remain available for continued livestock grazing. Upon decommissioning, the site would be returned to its current use. Therefore, the residual impact on agricultural resources would be less than significant.

		Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact with Mitigation Incorporated	Less Than Significant New or Increased Impact	or
III.		AIR QUALITY				
	app	ere available, the significance criteria established by the licable air quality management or pollution control district y be relied upon to make the following determinations.				
	Wo	uld the project:				
	a.	Conflict with or obstruct implementation of the applicable air quality plan?			X	
	b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		X		
	c.	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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		X		
	d.	Expose sensitive receptors to substantial pollutant concentrations?		X		
	e.	Create objectionable odors affecting a substantial number of people?			X	

#### Discussion of Checklist Answers

- a. The applicable air quality plan is the San Luis Obispo County Air Pollution Control District (APCD) Clean Air Plan (2001). The plan projects air quality emissions and standard attainment goals based on growth rates in population and vehicle travel in San Luis Obispo County. The project would not conflict with or obstruct the Clean Air Plan because it does not include additional development growth, urban sprawl, or result in an increase in vehicle miles traveled due to the minimal operational trips necessary to maintain the facility. In addition, the project would provide a new source of renewable energy, which would support the goals of the Clean Air Plan.
- b, c. Construction and operation of the proposed project would result in the emission of additional short- and long-term criteria air pollutants from mobile and/or stationary sources. "Criteria pollutants" under the Clean Air Act are ozone (O3), nitrogen dioxide (NO2), carbon monoxide (CO), sulfur dioxide (SO2), particulate matter less than or equal to 10 microns in size (PM10), particulate matter less than or equal to 2.5 microns in size (PM2.5), and lead (Pb). An area is designated in attainment when it is in compliance with the National Ambient Air Quality Standards and/or the California Ambient Air Quality Standards. San Luis Obispo County is designated as attainment and/or unclassifiable of all federal standards with the exception of the 8-hour O3 standard for the eastern portion of the County; the western portion of the County is designated as attainment for the federal 8-hour O3 standard. The County is designated as nonattainment for the state 8-hour and 1-hour O3 standards and the state PM10 standards, but is designated as attainment for all other state criteria pollutant standards.

Construction of the proposed project would result in a temporary addition of pollutants to the local air basin caused by soil disturbance, dust emissions, and combustion pollutants from on-site construction equipment, as well as from employee vehicles and off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Implementation of the proposed

project would generate construction-related air pollutant emissions from three general activity categories: entrained dust, equipment and vehicle exhaust emissions, and architectural coatings. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM10 and PM2.5 emissions. Exhaust from internal combustion engines used by construction equipment and hauling (dump trucks) and vendor trucks (i.e., delivery trucks) and worker vehicles results in emissions of oxides of nitrogen (NOx), reactive organic gases (ROG) (also referred to as volatile organic compounds (VOCs)), CO, PM10, and PM2.5. ROGs and NOx are important because they are precursors to O3. The application of architectural coatings, such as exterior/interior paint and other finishes, would also produce ROG emissions. Maximum daily emissions of NOx is expected to occur during the grading and site demolition as a result of off-road equipment operation and on-road haul trucks. Fugitive dust and off-road equipment emissions during grading are expected to generate the maximum daily PM2.5 emissions. Maximum daily PM10 emissions are expected to occur during grading and construction.

Emissions resulting from the project were estimated using the most recent version of the California Emissions Estimator Model (CalEEMod) (refer to Tables 2 and 3, below). Worksheets outlining the model assumptions are attached as Appendix B. Based on the modeling, the project would exceed construction emissions thresholds without mitigation, for DPM only. With mitigation, DPM emissions would not exceed the identified threshold. Results are summarized in the following tables:

Table 2. Comparison of Unmitigated Construction Emission Impacts to APCD Quarterly Thresholds

	Quarterly Maximum Emissions (tons/quarterly			
	ROG + NO <sub>X</sub> a	<b>DPM</b> <sup>b</sup>	Fugitive PM <sub>10</sub> , Dust	
Project Emissions	2.43	0.20	0.90	
Quarterly Tier 1 Threshold <sup>c</sup>	2.5	0.13	2.5	
Project Construction Emissions Exceed Threshold?	No	Yes	No	

<sup>&</sup>lt;sup>a</sup> Summation of individual Reactive Organic Gases (ROG) and Nitrates of Oxygen (NO<sub>X</sub>) outputs.

Table 3. Comparison of Mitigated DPM Construction Emission Impacts to APCD Quarterly Thresholds

	Quarterly Maximum Emissions (tons/quarter)
	DPM
Project Emissions	0.09
Quarterly Tier 1 Threshold <sup>b</sup>	0.13
Project Construction Emissions Exceed Threshold After Mitigation?	No

<sup>&</sup>lt;sup>a</sup> Mitigation includes use of Tier 2 Engines on selected equipment.

Operational emissions impacts compared to the APCD Daily Thresholds are presented in Table 4. A comparison between operational emission impacts and APCD Yearly Thresholds can be found in Table 5. Model assumptions are outlined in Appendix B. As shown in Tables 4 and 5 below, operation of the project would not exceed identified thresholds.

<sup>&</sup>lt;sup>b</sup> Used exhaust PM10 and PM2.5 emissions as proxy for Diesel Particulate Matter (DPM) emissions.

<sup>&</sup>lt;sup>c</sup> Emission thresholds taken from "CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review," SLOAPCD, April 2012. Emission thresholds listed are for Quarterly Tier 1.

b Emission thresholds taken from "CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review," SLOAPCD, April 2012. Emission thresholds listed are for Quarterly Tier 1.

Table 4. Comparison of Unmitigated Operational Emissions to APCD Daily Thresholds

		Daily Thresh	nold (lb/day)	
	ROG + NO <sub>X</sub> a	<b>DPM</b> <sup>b</sup>	Fugitive PM <sub>10</sub> , Dust <sup>c</sup>	СО
Project Emissions	10.68	0.70	0.00	4.69
Daily Threshold <sup>d</sup>	25	1.25	25	550
Daily Operational Emissions Exceed Threshold?	No	No	No	No

<sup>&</sup>lt;sup>a</sup> Summation of individual ROG and NO<sub>X</sub> outputs.

Table 5. Comparison of Unmitigated Operational Emissions to APCD Yearly Thresholds

	Yearly Thresh	old (tons/year) <sup>a</sup>
	ROG + NO <sub>X</sub> b	Fugitive PM <sub>10</sub> , Dust
Project Emissions <sup>c</sup>	0.17	0.00
Yearly Threshold <sup>d</sup>	25	25
Yearly Operational Emissions Exceed Threshold?	No	No

<sup>&</sup>lt;sup>a</sup> There is no yearly threshold for DPM or Carbon Monoxide (CO).

Emissions from the project are within accepted thresholds when mitigation is applied, and the project would not result in emissions exceeding identified thresholds for criteria pollutants (ozone and PM10). The project will therefore not result in cumulatively considerable net increases in criteria pollutants (ozone and PM10) for which the area is in non-attainment. Impacts related to DPM emissions are considered less than significant when mitigated.

- d. The project site is within an existing agricultural area, proximate to a state highway. The closest sensitive receptor is located approximately 750 feet to the west, across Highway 1. As noted above, mitigation is required to reduce emissions of DPM below the identified threshold of significance. Site soils may include undocumented components, including naturally-occurring asbestos which would be particularly hazardous to sensitive receptors if airborne. Mitigation is recommended to ensure presence or absence of naturally-occurring asbestos is documented and that, if present, appropriate steps are taken to reduce health risks to a less than significant level. In the event materials containing asbestos are discovered onsite, the University would comply with current state and federal regulations. Potential impacts to sensitive receptors are therefore considered less than significant when mitigated, and through compliance with existing regulations.
- e. Earthwork, construction, and demolition activities would also result in the emission of diesel fumes and other odors typically associated with construction activities. Any odors associated with construction and demolition activities would be temporary and would cease upon project completion. Impacts would be less than significant.

#### **Mitigation Measures**

To ensure emissions generated during construction activities are reduced to a level that is less than significant, the following mitigation is provided in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001):

<sup>&</sup>lt;sup>b</sup> Used exhaust PM10 and PM2.5 emissions as proxy for DPM emissions.

<sup>&</sup>lt;sup>c</sup>Used unmitigated winter CalEEMod emissions output.

d Emission thresholds taken from "CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review," SLOAPCD, April 2012.

<sup>&</sup>lt;sup>b</sup> Summation of individual ROG and NO<sub>X</sub> outputs.

<sup>&</sup>lt;sup>c</sup> Used unmitigated annual CalEEMod emissions output.

d Emission thresholds taken from "CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review," SLOAPCD, April 2012.

#### MM AIR-1: Dust Control

- A) Employ measures to avoid the creation of dust and air pollution.
- B) Unpaved areas shall be wetted down, to eliminate dust formation, a minimum of twice a day to reduce particulate matter. When wind velocity exceeds 15 mph, site shall be watered down more frequently.
- C) Store all volatile liquids, including fuels or solvents in closed containers.
- D) No open burning of debris, lumber or other scrap will be permitted.
- E) Properly maintain equipment to reduce gaseous pollutant emissions.
- F) Exposed areas, new driveways and sidewalks shall be seeded, treated with soil binders, or paved as soon as possible.
- G) Cover stockpiles of soil, sand and other loose materials.
- H) Cover trucks hauling soil, debris, sand or other loose materials.
- I) Sweep project area streets at least once daily.
- J) Appoint a dust control monitor to oversee and implement all measures listed in this Article.
- K) The Contractor shall maintain continuous control of dust resulting from construction operations. Particular care must be paid to door openings to prevent construction dust and debris from entering the adjacent areas.
- L) When wind conditions create considerable dust, such that a nuisance would generate complaints, the Contractor shall either suspend grading operations, and/or water the exposed areas.
- M) Water down the project site, access routes, and lay down areas whenever generate dust becomes a nuisance.
- N) The campus reserves the right to request watering of the site whenever dust complaints are received.
- O) It shall be the university's sole discretion as to what constitutes a nuisance.

In addition to the measure listed above, the following dust control measures shall be implemented to reduce fugitive dust emissions generated during construction activities in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001):

- During construction, the amount of disturbed area shall be minimized.
- On-site vehicle speeds should be reduced to 15 miles per hour or less.
- Exposed ground areas that are left exposed after project completion should be sown with a fast-germinating native grass seed and watered until vegetation is established.
- After clearing, grading, earth moving, or excavation is completed, the entire area of disturbed soil shall be treated immediately by watering or revegetating or spreading soil binders to minimize dust generation until the area is paved or otherwise developed so that dust generation will be minimized.
- All roadways associated with construction activities should be paved as soon as possible. In addition, building and other pads shall be laid as soon as possible after grading, unless seeding or soil binders are used.
- Rock pads and/or rumble strips (or similar) shall be installed where vehicles enter and exit unpaved
  areas onto streets, or trucks and equipment shall be washed off before leaving the site.
- All PM10 mitigation measures shall be shown on grading and building plans.

- The contractor or builder shall consider the use of a SLOAPCD-approved dust suppressant where feasible to reduce the amount of water used for dust control.
- The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints and reduce visible emissions below the SLOAPCD's limit of 20 percent opacity for greater than 3 minutes in any 60 minute period. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such person(s) shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition.

The following mitigation measures is provided in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001) to reduce NOx, ROG and diesel particulate matter emissions generated from on-site construction equipment:

# MM AIR-2: Equipment Emission Control<sup>1</sup>

- The project shall require that all fossil-fueled equipment shall be properly maintained and tuned according to manufacturer's specifications.
- The project proponent shall require that all off-road and portable diesel-powered equipment
  including but not limited to bulldozers, graders, cranes, loaders, scrapers, backhoes, generator sets,
  compressors, auxiliary power units, shall be fueled exclusively with CARB certified diesel fuel.
- Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavyduty diesel engines, and comply with the State off-Road Regulation.
- Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation.
- Construction or trucking companies with fleets that that do not have engines in their fleet that meet
  the engine standards identified in the above two measures (e.g. captive or NOx exempt area fleets)
  may be eligible by proving alternative compliance.
- All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in
  the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling
  limit.
- Electrify equipment when feasible.
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible.
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.
- All on and off-road diesel equipment shall not idle for more than 5 minutes within 1,000 feet of
  sensitive receptors. Signs shall be posted in the designated queuing areas and or job sites to remind
  drivers and operators of the 5-minute idling restrictions limit.

With incorporation of Mitigation Measures AIR-1 and AIR-2, which reflect mitigation as identified in the *Cal Poly Master Plan and Environmental Impact Report* (Cal Poly San Luis Obispo 2001) and SLOCAPCD *CEQA Air Quality Handbook* (SLOCAPCD 2012), impacts are anticipated to be less than significant during construction.

In addition to the amended Master Plan mitigation identified above, the following mitigation is recommended:

<sup>&</sup>lt;sup>1</sup> Equipment emission control measures have been modified from the original measures provided in the Cal Poly Master Plan and Environmental Impact Report (2001) to reflect current SLOCAPCD recommendations as provided in the SLOCAPCD CEQA Air Quality Handbook (SLOCAPCD 2012).

- AQ-1 In the event materials potentially containing asbestos are to be disturbed or removed from the project site, the Construction Contractor shall comply with the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M asbestos NESHAP). These requirements include, but are not limited to: 1) written notification, within at least 10 business days of activities commencing, to the APCD, 2) asbestos survey conducted by a Certified Asbestos Consultant, and 3) applicable removal and disposal requirements of identified ACM.
- AQ-2. The presence or absence of naturally-occurring asbestos must be determined prior to start of soil disturbing activities. If Naturally Occurring Asbestos (NOA) is not present on-site, an exemption request will be filed with the SLOAPCD. If NOA is present on-site, the project will comply with all requirements outlined in the Asbestos Airborne Toxic Control Measures.
- AQ-3 Prior to ground disturbance and construction, the Construction Contractor shall ensure a geologic evaluation is conducted to determine if the area disturbed is exempt from the Air Resources Board Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (93105). If the site is not exempt from the ATCM requirements, the Construction Contractor shall comply with all requirements outlined in the Asbestos ATCM, which may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the San Luis Obispo APCD.
- AQ-4 Prior to ground disturbance and construction, the Construction Contractor shall obtain all required permits for the use of portable equipment, 50 horsepower or greater, from the San Luis Obispo APCD.
- AQ-5 Prior to operation of the project, Cal Poly shall obtain all required operational permits from the San Luis Obispo APCD.

#### Conclusion

The project is consistent with the Clean Air Plan. Modeled emissions from the project, once mitigated, are considered less than significant. The project would not pose particular risk to sensitive receptors, nor would it be a source of objectionable odors. Overall impacts to air quality are considered less than significant.

		Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact with Mitigation Incorporated	Less Than Significant New or Increased Impact	or
IV.		BIOLOGICAL RESOURCES				
	Wo	ould 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, or 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 residents or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
	e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
	f.	Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

#### Background

The project site is located within an agriculturally dominant portion of the Cal Poly campus and is used for livestock grazing. Habitat present within the project site is limited to annual grassland, and two drainage swales are present within the project site, but outside of the proposed development area. Information included in the discussion below is based on biological and floristic botanical surveys conducted by SWCA biologists in February 2016, April 2016, and May 2016 (SWCA 2016b).

The project site supports one habitat type, California annual grassland, which is currently and has historically been used by the University for livestock grazing units. This vegetation type is dominated by introduced Mediterranean annual grasses in association with many species of non-native and native forbs (herbaceous annual plants such as wildflowers). Annual grasses typically out-compete native grasses and forbs in this plant community. The grassland on within the development footprint was observed to be composed of mostly non-native annual grasses with a small occurrence of purple needlegrass (*Stipa pulchra*) that was not prevalent or dominant enough to be categorized as a separate vegetative community. The grasslands onsite provide foraging habitat for a variety of

wildlife species, including raptors and other birds, and small mammals. The site may also provide foraging habitat for larger mammals such as foxes and coyotes; however, the area is currently fenced, which limits larger wildlife migration through the site. Wildlife observed foraging in annual grassland during field surveys included California ground squirrel, common rabbit, western fence lizard, red-tailed hawk, American kestrel, black phoebe, western scrub jay, northern mockingbird, and Asian-collared dove.

There are several drainage swales in the project area that flow during the rainy season. One drainage swale is located within the western corner of the project area and carries stormwater (west to east) under Highway 1. Stormwater flows overland through the swale, and eventually leaves project boundaries via an existing culvert located beneath the main unpaved access road. According to the U.S. Fish and Wildlife Service (USFWS) national wetland inventory, the drainage flows towards the California Men's Colony and connects with Chorro Creek downstream (USFWS 2016). Drainage swales are often indicative of waters of the United States and/or jurisdictional wetland habitat, both within U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) jurisdiction. Additional jurisdictional features and natural communities in the project area include California Bullrush Marsh, Arroyo Willow Thicket, California Sycamore Woodland, and California Sagebrush Scrub, and associated drainages to the north and east of the development boundary. The proposed development boundary avoids direct disturbance of these drainages and potentially jurisdictional features.

# **Discussion of Checklist Answers**

a. Based on review of the California Natural Diversity Database (CNDDB), a total of 106 special-status plant species and 45 special-status animal species have been documented within an approximately 10-mile radius of the project site.

**Plant Species, Construction-Related Impacts.** Based on seasonally-appropriate floristic surveys conducted within the project site and surrounding areas, the following special-status plants were observed onsite:

Cambria morning-glory (*Calystegia subacaulis*). Cambria morning-glory is a California Native Plant Society (CNPS) Rare Plant Rank 4.2 species. Plants in the Rank 4.2 category are of limited distribution or infrequent throughout a broader area in California, and are considered fairly threatened in California. While the CNPS does not call these plants "rare" from a statewide perspective, they are uncommon enough that their status should be monitored regularly. Very few of the plants constituting California Rare Plant Rank 4 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and few, if any, are eligible for state listing. Nevertheless, many of them are significant locally, and the CNPS strongly recommends that California Rare Plant Rank 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA. This may be particularly appropriate for: the type locality of a California Rare Plant Rank 4 plant; populations at the periphery of a species' range; areas where the taxon is especially uncommon; areas where the taxon has sustained heavy losses; or populations exhibiting unusual morphology or occurring on unusual substrates (CNPS 2010).

Cambria morning-glory is located along the eastern portion of the project site, within the proposed development area. Disturbance of these populations would result in a potentially significant impact; therefore, recommended mitigation includes the salvage of observed Cambria morning glory individuals through preservation of the seed bank. This would be accomplished by scraping the top six inches of soil to be disturbed during construction and stockpiling it until construction of the project is complete. The salvaged soil would essentially preserve the seed bank, and allow for reapplication within areas surrounding the facility, that would not be impacted directly or indirectly by the project, such as proximate to existing populations just outside of the proposed development footprint. Based on implementation of this measure, potential impacts would be less than significant.

Blochman's dudleya (*Dudleya blochmaniae*). Blochman's dudleya is a CNPS Rare Plant Rank 1B.1 species. Plants in the Rank 1B.1 category are rare throughout their range with the majority of them endemic to California, and are considered seriously threatened in California. Most of the plants that are ranked 1B have declined significantly over the last century. All of the plants constituting California Rare Plant Rank 1B meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible

for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA (CNPS 2010).

All occurrences of this species are located outside of the proposed development footprint, and would not be directly impacted by the project. The individuals are located upslope of the development area, and would not be adversely affected by any changes in drainage patterns. To ensure avoidance of accidental disturbance of these populations, mitigation is identified including installation of protection fencing by a qualified biologist, to remain throughout the construction and decommissioning phases of the project.

Animal Species, Construction-related Impacts. The following thirteen special-status wildlife species have the greatest potential to occur within, or proximate to the project site: California red-legged frog (Rana draytonii), foothill yellow-legged frog (Rana boylii), coast range newt (Taricha torosa torosa), western pond turtle (Emys marmorata), grasshopper sparrow (Ammodramus savannarum), burrowing owl (Athene cunicularia), purple martin (Progne subis), western yellow-billed kuckoo (Coccyzus americanus), tri-colored blackbird (Agelaius tricolor), loggerhead shrike (Lanius ludovicianus), California horned lark (Eremophila alpestris actia), white tailed kite (Elanus leucurus), Cooper's hawk (Accipiter cooperi), and nesting birds. Although no special-status species were observed during the field surveys, the site provides foraging and upland habitat for the following species:

California red-legged frog. The California red-legged frog was formally listed by the USFWS as federally threatened in 1996, and is considered a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW). The project site is located within Critical Habitat for this species. This species prefers aquatic habitats with little or no flow, the presence of surface water to at least early June, surface water depths to at least 2.3 feet, and the presence of fairly sturdy underwater supports such as cattails. Riparian habitat degradation, urbanization, predation by bullfrogs, and historic market harvesting has reportedly contributed to its population decline.

Although this species was not observed during surveys, and the project would avoid creeks and drainages, the presence of California red-legged frog within upland grassland should be inferred since there are numerous occurrences of this species on Camp San Luis property near Chorro Creek (approximately 1.7 miles northwest of the project site) and there is a known occurrence of this species near Shepard and Smith Reservoirs located approximately 1.3 miles southeast of the project site. If present, California red-legged frog may be impacted during vegetation removal, grading, and construction activities. Direct impacts could include injury or mortality from construction equipment, construction debris, and worker foot traffic. Indirect effects of construction activities, including noise and vibration, erosion, sedimentation, and accidental leaks or spills from construction equipment could also impact the species. Proposed mitigation, including installation of barrier fencing, a pre-construction survey by a qualified biologist, and worker training would mitigate potential inadvertent impacts to individuals during potential upland migration. In addition, mitigation is identified to protect air and water quality, which would also mitigate potential impacts to this species.

Foothill yellow-legged frog, western pond turtle, and coast range newt. Foothill yellow-legged frog is a SSC that occupies coastal California foothills in flowing streams and rivers with rocky substrate or sunny banks. This species has been documented in tributaries to San Luis Obispo Creek, approximately five miles southeast of the project area. The western pond turtle is a SSC species that lives where water persists year-round in ponds along foothill streams or in broad washes near the coast. The western pond turtle is mostly aquatic, leaving its aquatic site to reproduce, aestivate, and over-winter in nearby upland areas. Coast range newt is a SSC that breeds in ponds, reservoirs, and slow-moving streams. There is a historical occurrence of this species in Brizzolara Creek approximately 2.5 miles east of the project area.

Direct impacts to foothill yellow-legged frog and western pond turtle could include injury or mortality in adjacent uplands from construction equipment, construction debris, and worker foot traffic. Indirect effects of construction activities, including noise and vibration, may cause these species to temporarily abandon habitat adjacent to work areas. This disturbance may increase the potential for predation and desiccation if individuals abandon shelter sites. The indirect effects of erosion, sedimentation, or contamination of

surface waters could also impact these species. Mitigation identified above and below for California redlegged frog would also mitigate potential impacts to these species.

The project site supports foraging habitat for special-status bird species, in addition to common nesting birds. The project site supports ground nesting and burrowing habitat. No tree nesting habitat is present within the project site; however, tree nesting habitat may be present within nearby drainages and riparian areas. These species may be affected by construction equipment, noise, dust, and increased human presence. If any migratory bird (common species, raptors, or other special-status birds) nests in areas where direct construction disturbance would occur, work during the breeding season (typically February 1 through September 15) could result in the destruction or abandonment of nests, eggs, or young. Active nests could be removed, trampled, or crushed by construction and use of access roads during construction; in addition, the noise, vibration, and movement of construction equipment and personnel proximate to active nests could cause adults to abandon eggs or young. Artificial lights used during night construction (if proposed) may result in an increased potential for disturbance or mortality of species that prey on insects attracted to light sources. Loss of foraging habitat could also negatively affect nesting raptors and bird species.

Cooper's Hawk. Cooper's hawk is considered a SSC species by the CDFW. It is a fairly large accipiter hawk that ranges throughout the United States and is widely distributed throughout California. This species is a resident of San Luis Obispo County, nesting and foraging in and near deciduous riparian areas. The Cooper's hawk occupies forests and woodlands, especially near edges. It is rarely found in areas without dense tree stands or patchy woodland habitat. Nests are built in deciduous trees usually 20 to 50 feet above ground.

White-tailed kite. The white-tailed kite is a state Fully Protected (FP) species. It is a yearlong resident ranging throughout valley and coastal lowlands in California, and most commonly, near agricultural areas. Within San Luis Obispo County, this species is considered an uncommon resident. Nesting and roosting occurs in dense, broad-leafed deciduous groves of trees.

Western yellow-billed cuckoo. The western yellow-billed cuckoo is a federal candidate for listing and a state endangered species. It is a casual spring and fall transient in San Luis Obispo County. Although its historic status within the county is unknown, it was likely a regular breeder in large cottonwood-willow riparian woodlands. There are only eight San Luis Obispo County records for the species over the last 50 years, two of which pertain to nesting birds. The County's two nesting records involve a fledgling collected in San Luis Obispo in 1921 (San Bernardino County Museum) and an egg set taken in 1932 at "Mile's Station" in upper Avila Valley, which is incorrectly mapped by the CNDDB as a City of San Luis Obispo record (Edell 2004). There are no known recent nesting records in San Luis Obispo County and there are no known breeding locations outside of the currently known breeding locations, none of which occur in San Luis Obispo County (Edell 2004). The subspecies is not expected to nest within the project site based on lack of suitable habitat.

Loggerhead shrike. The loggerhead shrike is considered a SSC species. It is a medium-sized passerine (perching) bird that ranges from southern Canada to southern Mexico and from the Gulf States west into California. This species prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Nests are built on a stable branch in a densely foliaged shrub or tree, usually well concealed and 1.3 to 50 feet above ground.

Purple martin. The purple martin is considered a SSC species. At one time, the species was a fairly common breeder in the Coast Range, but in the last 15 years there has been a dramatic decrease in southern California where it was once a common breeder in the mountains and in some lowland residential areas. The purple martin inhabits hardwood, hardwood-conifer, riparian, and coniferous habitats. It usually nests in old woodpecker cavities, but will occasionally nest in man-made structures.

California horned lark. The California horned lark is considered a SSC species. It is ground-dwelling bird that is a widespread occupant of open habitats across North America. It inhabits areas with sparse vegetation and exposed soil. In western North America, this species is associated with desert scrub, grasslands, and similar open habitats, as well as alpine meadows.

Burrowing owl. Burrowing owl is considered a SSC species. This species is found in open, dry grasslands, agricultural and range lands, and desert habitats often associated with burrowing animals. They can also inhabit grass, forb, and shrub stages of pinyon and ponderosa pine habitats at elevations ranging from 200 feet below sea level to 9,000 feet.

Grasshopper sparrow. Grasshopper sparrow is considered a SSC species. This species is a locally uncommon summer visitor in the breeding season from March to September. The species breeds in open grasslands, pastures, ruderal fields, sparse scrublands, grain fields and prairies that are located on rolling hills. These sparrows migrate from Canada to the southern United States, Mexico and Central America. Grasshopper sparrows build their nest on the ground under vegetation, and forage on the ground feeding mostly on insects and seeds.

Tri-colored blackbird. Tri-colored blackbird is considered a SSC species. It is common locally throughout the Central Valley and along the coast south of Sonoma County, and has been documented at Cuesta College and along Pennington Creek Road. This species breeds near fresh water, preferably in emergent wetlands, and forages in grasslands and croplands. It should be noted that this species was emergency listed to the CESA as State Endangered; however, this emergency listing lapsed as of June 30, 2015.

The species described above are each protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code §3503. In addition to these species, numerous other nesting bird species protected by these two regulatory laws have the potential to nest in habitats within and proximate to the project site. The removal of vegetation could directly impact bird nests and any eggs or young residing in nests. Indirect impacts could also result from noise and disturbance associated with construction, which could alter perching, foraging, and/or nesting behaviors. The implementation of the avoidance and minimization measures such as appropriate timing of vegetation removal, pre-activity surveys, and exclusion zones will reduce the potential for adverse effects to nesting bird species.

Operational Impacts and Loss of Habitat. Implementation of the project would result in the loss of grassland, foraging, and upland habitat for the above-listed animal species. While the solar facility would allow for areas of usable habitat between and under the solar panels, the panels would create shade and limit visibility and foraging opportunities. Identification of compensatory mitigation within the 40-acre project area (and outside of the development footprint) is recommended to ensure future protection of habitat proximate to the project area, as these areas 1) contain habitat similar to the area within the development footprint, 2) support suitable conditions for special-status plants and animals known and likely to occur and 3) are currently identified for protection to avoid and minimize visual and cultural resource impacts.

California red-legged frog, footbill yellow-legged frog, coast range newt, western pond turtle. Upland habitat for these species is present onsite. Based on the boundaries of the proposed development area, the project would have no direct effect on any drainages or potential breeding habitat. The project would result in the conversion and modification of upland dispersal habitat for the species. Up to approximately 18.5 acres of upland habitat would be permanently impacted; however, grassland habitat beneath the solar arrays will be available for California red-legged frog and other species' dispersal during operation of the facility. Potential direct impacts include mortality or injury of individuals, which is most likely to occur during the construction phase; however, mortality could result from periodic vehicle presence during operational phase of the project, when these species may be dispersing across the project site during the breeding season. The potential for these impacts is low, based on the number of maintenance trips anticipated on an annual basis (1-2 trips per month, and approximately 8 trips per annual washing). All maintenance personnel will receive environmental training regarding special-status species to reduce the potential for inadvertent impacts. Based on compliance with this measure, and low number of operational/maintenance trips, potential impacts would be less than significant.

Burrowing owl. Implementation of the project may permanently impact up to 18.5 acres of potential burrowing owl habitat, as a result of grading, construction, and shading. This species, or evidence of burrows, was not observed during the biological surveys conducted for the project. Installation of the solar arrays would reduce habitat availability for the species because burrowing owls tend to shy away from

habitats with vertical structures that obscure visibility of the surrounding landscape and reduce the owls' ability to remain vigilant for potential predators. If ground squirrel burrows are readily available and prey is abundant in the area, some owls may choose to occupy and forage within the margins of panel arrays and to use the edge panels as sentinel perches. However, it is less likely that burrowing owls would occupy burrows or forage deep within large panel arrays. Direct impacts to burrowing owls include mortality, injury, destruction of burrows and loss of suitable foraging and nesting habitat. Direct impacts may also include disturbances to adjacent occupied burrows such that normal foraging, sheltering, or nesting behaviors are altered, potentially resulting in abandonment of nests and exposure to predation.

Other raptors and birds. The grassland within the project site and riparian areas near the site provide suitable breeding and foraging habitat for a variety of native and migratory birds, which are discussed above. The modification of 18.5 acres of grassland habitat represents a small percentage of the available habitat both within the University campus and proximate areas, which include large spans of open space and rangeland in the immediate area. Some foraging and roosting/perching habitat would be available for birds within grassland and vegetation to remain within the solar facility and adjacent areas.

Solar facilities also present risk for bird collisions with solar panels. Birds migrating at night or moving between the riparian areas in the area would also be at an increased risk of collision with the solar panels as the panels might be mistaken for open sky or water. Based on the extent of foraging habitat in the region and lack of observed nests or burrows within the project site, population-level impacts are unlikely. The project could also indirectly affect smaller raptors and other special status bird species through increased availability of perches for, and a resulting increase in predation activity of larger raptors.

Mitigation is identified to address potential direct and indirect impacts to special-status species, that may occur during the construction, operation, and decommissioning of the project. Identified mitigation includes: an in-kind conservation area to be selected and managed by the University, proximate to the project site (within the 40-acre project area), which would allow for continued habitat use by special status species and livestock grazing similar to existing conditions that support these species; restoration of special-status plant species including Cambria morning-glory within the in-kind conservation area; pre-construction surveys; biological monitoring during construction and decommissioning; worker training; and, additional protection measures typically recommended and required by resource agencies including the USFWS and CDFW. Based on implementation of these measures, potential impacts would be mitigated to less than significant.

b, c. The proposed project has been sited to avoid any direct impacts to jurisdictional features and drainages, including a minimum 30-foot buffer from these features. Therefore, the project would not result in any direct impacts to sensitive natural communities, riparian resources, or wetlands regulated by applicable state, federal, or local plans or policies, or by the CDFW or USFWS. Potential indirect impacts to these habitats and features include inadvertent disturbance by equipment, additional foot traffic, and discharge of sediment and other pollutants.

Compliance with existing regulations (i.e. preparation of a SWPPP) and identified mitigation would address these potential impacts (refer to Section III Air Quality, Section VI Geology and Soils, Section VIII Hazards and Hazardous Materials, and Section IX Hydrology and Water Quality). Therefore, potential impacts would be mitigated to less than significant.

- d. The University is located along the Pacific Flyway, an important migratory route for many birds traveling between North and South America. Riparian areas, freshwater marshes, and other wetland areas are particularly important areas to migratory birds of the Pacific Flyway (also refer to the discussion above, see a.). The site is bound by an electric fence for livestock management and does not provide migration linkages for larger common or special-status wildlife; therefore, the site would operate similar to existing conditions. Therefore, the project would not substantially interfere with wildlife movements or behaviors, aside from impacts identified above (see discussion under a.).
- e. The project would not conflict with University policies regarding biological resources. The University does not have an adopted tree preservation policy. Master Plan policies that address biological resources generally call for the siting of new development proximate to or within existing developed areas, and

avoidance of sensitive areas such as creeks. Although the project is located within an area currently and historically used for agriculture, the development area is located approximately 625 feet from the California Men's Colony, 200 feet from the PG&E substation, and adjacent to Highway 1. The project avoids identified potentially sensitive habitats including drainages and vegetative communities. Therefore, the project is consistent with guidance provided in the Master Plan, and impacts are less than significant.

f. The project site is not within an area subject to a Habitat Conservation Plan (HCP) or Natural Community Conservation Planning (NCCP), or other local or regional conservation planning document. There is no impact.

# **Mitigation Measures**

MM AIR-1 (Dust Control); HM-1 through HM-5 (Hazardous Materials Spill, Leak, Exposure and Fire Risk Minimization); HYD-1 through HYD-5 (Protection of Water Quality)

- BR-1 Prior to initiation of construction, the University shall prepare a compensatory mitigation plan showing the location of a protected conservation area proximate to the project site. The mitigation plan shall result in a minimum 1:1 ratio of in-kind habitat, consisting of grasslands, trees, drainages, and other features similar to the project site. The primary purpose of the conservation area shall be conservation of impacted species and habitats, but the area shall also allow livestock grazing when and where it is deemed beneficial for the habitat needs of impacted species, such as continued grazing by sheep and goats. No future development of this area shall be permitted for the life of the project. The mitigation plan shall include, at a minimum, the following information:
  - a. Summary of habitat and species impacts and the proposed mitigation for each element;
  - b. Description of the location and boundaries of the mitigation site and description of existing site conditions;
  - c. Description of any measures to be undertaken to enhance (e.g., through focused management) the mitigation site for special status species;
  - d. Description of management and maintenance measures intended to maintain and enhance habitat for the target species (e.g., weed control, fencing maintenance);
  - e. Compilation of a dedicated, site-specific managed grazing plan, prepared in consultation with the University's Department of Agriculture, including a description of the adaptive management scheme for this plan;
  - f. Description of habitat and species monitoring measures on the mitigation site, including specific, objective performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule for a minimum period of three years; monitoring shall document compliance with each element requiring habitat compensation or management;
  - g. A contingency plan for mitigation elements that do not meet performance or final success criteria within described periods; the plan shall include specific triggers for remediation if performance criteria are not met and a description of the process by which remediation of problems with the mitigation site (e.g., presence of noxious weeds) shall occur;
  - h. Reporting shall include an annual monitoring report to be submitted to the University; and
  - i. For any species listed under the federal Endangered Species Act (FESA) or California Endangered Species Act (CESA), demonstration that the compensatory mitigation, conservation, and management (1) will fully mitigate for any take of a CESA-listed species as defined by CESA, (2) minimize and mitigate any take of an FESA-listed species to the maximum extent practicable as defined by FESA, and (3) ensure that impacts from the project are not likely to jeopardize the listed species continued existence as defined by FESA.

- BR-2 Prior to construction, the University shall retain a qualified biological monitor. The biological monitor shall prepare a monitoring plan for review and approval by the University. Full-time monitoring will occur during vegetation removal, and erosion control installation. Monitoring may be reduced to part time once construction activities are underway and the potential for additional impacts are reduced. The plan shall include, but not be limited to:
  - a. Goals, responsibilities, authorities, and procedures for verifying compliance with environmental mitigation measures;
  - b. Lines of communication and reporting methods;
  - c. Daily and weekly reporting of compliance;
  - d. Authority to stop work, and the conditions that would require such action; and
  - e. Action to be taken in the event of non-compliance.
- BR-3 Upon preparation of construction plans, and prior to ground disturbance, the University shall ensure that grading plans and associated notes incorporate the following:
  - a. Within the areas supporting Cambria morning-glory, the top six inches of soil to be disturbed during construction shall be scraped and stockpiled onsite, consistent with the erosion and sedimentation control plan for the project.
  - b. The stockpiled top soil shall be reapplied proximate to the site, within the identified conservation area.
  - c. Early successional grasses consistent with the surrounding area including Cambria morning-glory shall be added to the seed base within the stockpiled top soil.
  - d. The revegetated area shall be irrigated and stabilized pursuant to the final erosion and sedimentation control plan.
  - e. Restoration shall be monitored on a quarterly basis for a period of three years (minimum) to ensure successful restoration of Cambria morning-glory.
  - f. Restoration actions shall be conducted and monitored by a qualified biologist. The biological monitor shall submit quarterly monitoring reports to the University. Any additional actions to ensure successful restoration (i.e., removal of weeds, irrigation) shall be documented in the reports. Implementation of such actions shall be documented by the biological monitor and verified by the University.
- BR-4 Upon preparation of construction plans, and prior to ground disturbance, the plans shall delineate "Environmentally Sensitive Areas" to protect observed populations of Blochman's dudleya, drainages and wetland habitat (minimum 30-foot buffer). Highly visible temporary construction fencing shall be installed along the boundary of the "Environmentally Sensitive Areas" and shall remain in place until the biological monitor recommends removal. No ground disturbance, construction worker foot traffic, storage of materials, or storage or use of equipment shall occur within the "Environmentally Sensitive Areas".
- BR-5 Only USFWS-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frog. Ground disturbance shall not begin until written approval is received from the USFWS that the biologist is qualified to conduct the work. The University would be the federal lead agency for the project. Therefore, the University shall request approval of the biologist from USFWS.

- BR-6 A USFWS-approved biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist shall be allowed sufficient time to move them from the site before work activities begin. The USFWS-approved biologist shall relocate the individual(s) the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the project. The USFWS-approved biologist shall maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photographs [digital preferred]) to assist him or her in determining whether translocated animals are returning to the point of capture.
- BR-7 Prior to initiation of construction and decommissioning activities, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the special-status species potentially present in the area, jurisdictional habitats present proximate to the project site, California red-legged frog and its habitat, the specific measures that are being implemented to protect special-status species, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions. The training shall also be provided to all maintenance personnel for the life of the project.
- BR-8 A USFWS-approved biologist shall be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, the state or local sponsoring agency shall designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist shall ensure that this monitor receives the required training in the identification of California red-legged frog. If the monitor or the USFWS-approved biologist recommends that work be stopped because this species would be adversely affected they shall immediately notify the appropriate University representative that is directly overseeing and in command of construction activities. The University representative shall either resolve the situation by eliminating the effect immediately or require that all actions that are causing these effects be halted. If work is stopped, the appropriate University personnel and USFWS shall be notified as soon as is reasonably possible.
- BR-9 During project activities, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.
- BR-10 All refueling, maintenance and staging of equipment and vehicles shall occur at least 60 feet from wetland habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the University shall ensure that a plan is in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take shall a spill occur.
- BR-11 Project areas to remain undeveloped shall be revegetated with an assemblage of vegetation suitable for the area. Locally collected plant materials shall be used to the extent practicable. Invasive, exotic plants shall be controlled to the maximum extent practicable. Topographic contours shall remain in their original configuration to the maximum extent feasible.
- BR-12 The number of access routes, size of staging areas, and the total area of activity shall be limited to the minimum necessary to achieve the project. Environmentally Sensitive Areas shall be established to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat. Drainages, riparian areas, and wetland habitat shall be avoided.
- BR-13 The University will attempt to schedule work for times of the year when impacts to the California redlegged would be minimal, including avoiding construction during the breeding season, which is generally November through May. Habitat assessments, surveys, and technical assistance between the University

- and the USFWS during project planning shall be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.
- BR-14 Unless approved by the USFWS, water shall not be impounded in a manner that may attract California red-legged frogs.
- BR-15 A USFWS-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes from the project area, to the maximum extent possible. The USFWS-approved biologist shall be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.
- BR-16 The USFWS-approved biologist shall follow the fieldwork code of practice developed by the Declining Amphibian Task Force at all times.
- BR-17 The construction manager/contractor shall avoid the use of herbicides as the primary method to control invasive, exotic plants to the maximum extent feasible. If herbicides are used, such use shall be subject to the following measures.
  - a. Herbicides shall not be used within 50 feet of drainages, riparian areas, and wetland areas during the breeding season for California red-legged frog.
  - b. Surveys for special-status aquatic species including, but not limited to, California red-legged frog shall be conducted immediately prior to the start of herbicide use. If found, use of herbicides shall only occur far enough from the occurrence area to ensure that no direct contact with herbicide would occur.
  - c. Giant reed and other invasive plants will be cut and hauled out by hand and painted with glyphosate-based products, such as Aquamaster or Rodeo.
  - d. Licensed and experienced University staff or a licensed and experienced contractor will use a hand held sprayer for foliar application of Aquamaster or Rodeo where large monoculture stands occur at a project site.
  - e. All precautions will be taken to ensure that no herbicide is applied to native vegetation.
  - f. Herbicide will not be applied on or near open water surfaces (no closer than 60 feet from open water).
  - g. Foliar applications of herbicide will not occur when wind speed is in excess of 3 miles per hour.
  - h. No herbicides will be applied within 24 hours of forecasted rain.
  - i. Application of all herbicides will be done by a qualified University staff or contractors to ensure that overspray is minimized, that all applications is made in accordance with the label recommendations, and with implementation of all required and reasonable safety measures. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency County Bulletins.
  - j. All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic areas. The University will ensure that contamination of aquatic habitat does not occur during such operations. Prior to the onset of work, University will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
- BR-18 Prior to construction, the qualified biological monitor shall obtain a letter of permission from the California Department of Fish and Wildlife to relocate Foothill yellow-legged frog western pond turtles,

and coast range newt, and other SSC species from work areas encountered during construction, as necessary. Qualified biologists shall conduct a pre-construction survey for these species in proposed work areas where construction will occur. The qualified biologists shall capture and relocate any SSC species (if present) or other native species to suitable habitat outside of the area of impact. If discovered, observations of SSC species or other special-status species shall be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

- BR-19 Vegetation removal shall be scheduled to occur outside of the nesting season (avoidance period would be September 1 to February 14) if possible, to avoid birds that may be nesting within areas of disturbance during or just prior to construction.
- BR-20 Prior to construction, if construction activities are proposed to occur during the typical nesting season (which is February 15 to August 31) within 200 feet of potential nesting habitat, a nesting bird survey shall be conducted by qualified biologists in potential nesting habitat at least two weeks prior to construction to determine presence/absence of nesting birds within the project area. Work activities shall be avoided within 100 feet of active bird nests and 200 feet of active raptor nests until young birds have fledged and left the nest. Readily visible exclusion zones shall be established in areas where nests must be avoided. The University shall be contacted if any state or federally listed bird species are observed during surveys. The U.S Fish and Wildlife Service and California Department of Fish and Wildlife shall be contacted for additional guidance if nesting birds are observed within or near the boundaries of the project site. Nests, eggs, or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code would not be moved or disturbed until the end of the nesting season or until young fledge, whichever is later, nor would adult birds be killed, injured, or harassed at any time.
- BR-21 Vegetation removal in potential nesting habitats shall be monitored and documented by the biological monitor(s) regardless of time of year.
- BR-22 During construction, the cleaning and refueling of equipment and vehicles will occur only within a designated staging area and at least 60 feet from wetlands, other waters, or other aquatic areas. This staging area will conform to Best Management Practices applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles will be checked and maintained on a daily basis to ensure proper operation and avoid potential leaks or spills.
- BR-23 During construction, the biological monitor shall ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible. When practicable, invasive exotic plants in the project site will be removed and properly disposed.
- BR-24 During construction, trash will be contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas. All vegetation removed from the construction site shall be taken to a certified landfill to prevent the spread of invasive species. If soil from weedy areas (such as areas with poison hemlock or other invasive exotic plant species) must be removed off-site, the top 6 inches containing the seed layer in areas with weedy species shall be disposed of at a certified landfill.
- BR-25 During construction, no pets shall be allowed in the proposed work area.

# Conclusion

The project site is currently, and has historically, been used for livestock grazing. Grassland habitat onsite, and proximate drainages and wetland areas provide habitat for special-status species as described above. Potential impacts to special-status species and their habitat would be mitigated through the conservation of proximate in-kind habitat, monitoring by a qualified biologist, restoration actions, and implementation of protection measures. Therefore, potential impacts to biological resources would be less than significant.

		Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New Impact
V.		CULTURAL RESOURCES				
	Wo	uld the proposal:				
	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 archeological resource pursuant to §15064.5?		X		
	c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
	d.	Disturb any human remains, including those interred outside of formal cemeteries?		X		

### Background

A Phase 1 (surface) cultural resources survey was conducted within the project area (SWCA 2016c). In December 2015, an SWCA archaeologist requested a cultural resources records search for the project from the California Historical Resources Information System (CHRIS) Central Coast Information Center (CCIC), located at University of California, Santa Barbara. The CCIC consulted the following sources of information, along with official maps and records: National Register of Historical Places – Listed Properties; California Register of Historical Resources; California State Historical Landmarks California Points of Historical Interest; and Office of Historic Preservation Historic Property Directory and Determinations of Eligibility.

Following receipt of the records search results, SWCA archaeologists conducted an intensive pedestrian survey of the project area on February 9 and 10, 2016. The survey was conducted using parallel pedestrian transects spaced no more than 15 meters (approximately 50 feet) apart over the project area. All areas of exposed ground surface were examined for prehistoric artifacts (e.g., chipped stone tools and production debris, stone milling tools), historic artifacts (e.g., metal, glass, ceramics), soil discoloration that might indicate the presence of a cultural midden, linear features, soil depressions, and other features indicative of the former presence of historic structures or buildings (e.g., foundations).

The results of the records search, Native American tribal consultation, and field survey are incorporated into the discussion below. No requests for consultation from locally affected tribes pursuant to Assembly Bill 52 were received by the University.

# **Discussion of Checklist Answers**

a. Cal Poly was established on March 8, 1901, and was touted as a co-educational vocational school, which formed the basis for the current "Learn by Doing" campus motto. The university underwent several phases of growth and change over the twentieth century. Cal Poly's campus began modestly, with an administrative building, a boys' dormitory, and classrooms. Cal Poly played a pivotal role in the education and training of soldiers and civilians before, after, and during World War II. The campus housed a United States Naval Flight Preparatory School and served as the state headquarters for the Food Production War Training Program. The latter half of the century saw Cal Poly grow in student body and campus infrastructure. Dozens of new buildings were erected including the Fisher Science Building, the Robert E. Kennedy University Library, the Foundation Administration building, new Faculty Offices, and the Dairy Science Facility.

The project site currently supports livestock grazing, and there are no structures or other potentially historic features documented onsite. Therefore, the project would not have an adverse effect on historic resources.

b, d. The project area was historically occupied by the northernmost subdivision of the Obispeño Chumash, with the Salinan bordering to the north. However, the precise location of the boundary between the Chumashan-speaking Obispeño Chumash and their northern neighbors, the Hokan-speaking Playanos Salinan, is currently the subject of debate. The results of the records search (dated December 9, 2015) revealed that 10 cultural resources studies have been conducted within a 0.25-mile radius of the project site, and no previously identified cultural resources were documented within the project area and no previously identified cultural resources are within 0.25 mile of the project site.

SWCA contacted the California Native American Heritage Commission (NAHC) by email on December 7, 2015, requesting a review of the Sacred Lands File (SLF). The NAHC responded on December 21, 2015, indicating that the search of the SLF "failed to indicate the presence of Native American cultural resources within the immediate project area." The NAHC provided a list of 16 Native American contacts who may have additional information about the project area. SWCA sent a letter requesting information concerning cultural resources in the area to each of these contacts on December 22, 2015. To date, three responses were received:

Mona Tucker, yak tityu tityu Northern Chumash Tribe, contacted SWCA via email December 30, 2015, and stated, "I'm in receipt of your letter dated 12-22-15 regarding the Gold Tree Solar Project, Cal Poly SLO Co, Calif. SWCA 35528. Have you done a records search for this project? I would like to know if any report [sic] are available that you would kindly send to me." SWCA responded via email and informed Ms. Tucker that no previously identified cultural resources are in the project area or within a 0.25-mile radius, and that SWCA would be conducting a field survey. No further comments have been received to date.

Fred Romero, Santa Ynez Band of Mission Indians, responded via telephone on December 29, 2015, and stated that he has no comments on the project.

Patti Dunton, Tribal Administrator for the Salinan Tribe of Monterey and San Luis Counties, responded via email on February 9, 2016, and stated, "I have reviewed the proposed project and was wondering what the outcome was of your phase I? I know the site sites [sic] next to a creek and just east and west of know [sic] recorded archaeological sites. The site has been farmed by Cal Poly for many years and most of the surface material would be disturbed. Do you plan on doing any phase II testing? If so we would request that monitoring be done during all ground disturbing testing and project activities." SWCA responded via email and informed Ms. Dunton that a newly identified prehistoric archeological site and a prehistoric isolate were recorded in the project area and that avoidance of these resources is preferred; however, if avoidance is not an option then further study will be required.

The project area was entirely accessible; however, heavy grass cover limited surface visibility. In spite of poor visibility, the field survey identified a previously undocumented prehistoric archaeological site and a previously undocumented prehistoric isolate hammerstone. The observed artifacts were of the same material observed in the underlying and exposed bedrock formation, indicating the site was potentially utilized as a toolstone quarry and/or source material collection area. However, no direct evidence of quarrying was observed. The site boundary was established based on observed cultural material, the extent of exposed bedrock containing toolstone quality chert, and the landform on which the site is situated. Based on the University's review of the location of the archaeological site, the project development boundary was reconfigured to avoid the archaeological site and establish a 50-foot buffer.

Given the presence of a newly identified prehistoric archaeological resource and limited ground visibility, the entire project area should be considered sensitive for the presence of previously unidentified archaeological resources currently obscured by dense vegetation. Therefore, archaeological monitoring is recommended during initial vegetation clearing, site "grubbing," and grading. This will allow for the identification of any resources which may be visible on the surface but which were not identified during pedestrian survey due to ground cover. The presence of the archaeological monitor should be limited to

initial construction activities until a determination is made in the field by the archaeological monitor whether additional archaeological resources are present.

In the event that unknown archaeological resources are exposed during project implementation, work should stop in the immediate vicinity, and an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards (National Park Service 1983) should be retained to evaluate the find and recommend relevant mitigation measures. In the event that human remains are discovered, State of California Health and Safety Code Section 7050.5 shall be followed.

The discovery of human remains is always a possibility during ground disturbances; the State of California Health and Safety Code Section 7050.5 addresses these findings. This code section states that no further disturbance shall occur until the County of San Luis Obispo (County) Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be Native American, the County Coroner will notify the NAHC within 24 hours, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

The geologic formations underlying the project site include: Quaternary alluvium (Qa), Franciscan mélange (Fm), and Coast Range ophiolite complex, basalt-diabase (Ob). Qa consists of alluvial gravel and sand, and is typically too young to produce significant paleontological findings. It is rare to find fossils within Fm, as this formation is heavily deformed and metamorphosed in many locations, a process that destroys fossils; however, significant finds have been documented within this formation including trace fossils, mollusks, and marine reptiles. Ob is an igneous or metamorphosed igneous rock type and does not possess paleontological potential. Overall, these formations present a low to moderate sensitivity for significant paleontological resources. Implementation of the project is not anticipated to require deep grading to accommodate the maintenance building pad or solar panel foundations; however, based on the presence of exposed bedrock proximate to the project development area, bedrock potentially containing paleontological resources may be affected during construction of the facility. Therefore, based on the underlying geologic formations and potential for significant discovery in the Fm formation, mitigation is proposed to require a paleontological monitor in the event grading requires disturbance of bedrock. In the event of a finding, the resource would be properly documented and evaluated.

#### **Mitigation Measures**

- CR-1 Prior to ground disturbance, the University shall retain a qualified archaeologist, defined as an archaeologist who meets the Secretary of the Interior Professional Qualification Standards for archaeology. The archaeological monitor and a Chumash representative shall be present during initial vegetation clearing, site "grubbing," and grading. This will allow for the identification of any resources that may be visible on the surface but which were not identified during pedestrian survey due to ground cover. The presence of the archaeological monitor shall be limited to initial construction activities until a determination is made in the field by the archaeological monitor whether additional archaeological resources are present. The archaeological monitor shall submit a monitoring report to the University following completion of all required monitoring activities.
- CR-2 In the event unknown archaeological resources are exposed or unearthed during project construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. If the archaeologist determines that the resource is an "historic resource" or "unique archaeological resource" as defined by California Environmental Quality Act Guidelines Section 15064.5 and avoidance is not feasible, further evaluation by the archaeologist shall occur. The archaeologist's recommendations for further evaluation may include a Phase II testing and evaluation program to assess the significance of the site. Resources found not to be significant will not require mitigation. Impacts to sites found to be significant shall be mitigated through implementation of a Phase III data recovery program. After the find has been appropriately mitigated, work in the area may resume. A Chumash representative shall monitor any mitigation work associated with prehistoric cultural material.

- CR-3 Upon preparation of construction plans, the plans shall delineate a 50-foot buffer surrounding the documented archaeological site. The area shall be labeled as an "Environmentally Sensitive Area". Highly visible temporary construction fencing shall be installed along the boundary of the 50-foot buffer, and shall remain in place until the archaeological monitor recommends removal. No ground disturbance, construction worker foot traffic, storage of materials, or storage or use of equipment shall occur within the "Environmentally Sensitive Area".
- CR-4 If human remains are unearthed, the University and contractor shall comply with State Health and Safety Code Section 7050.5, which requires that no further disturbance shall occur until the County of San Luis Obispo (County) Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be Native American, the County Coroner will notify the Native American Heritage Commission within 24 hours, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.
- CR-5 If soil excavation associated with grading activities requires disturbance of bedrock formations, a qualified paleontologist will be retained to monitor construction activities in those areas. Should any vertebrate fossils or potentially significant finds (e.g., numerous well-preserved invertebrate or plant fossils) be encountered during work on the site, all activities in the immediate vicinity of the find shall cease until the qualified paleontologist evaluates the find for its scientific value. If deemed significant, the paleontological resource(s) shall be salvaged and deposited in an accredited and permanent scientific institution where they will be properly curated and preserved. If monitoring is required, the qualified paleontologist shall submit a monitoring report to the University following completion of all required monitoring activities.

#### Conclusion

The proposed project was designed to ensure the proposed development area would not directly affect the known archaeological site located in the area. Due to extensive ground cover, monitoring by a qualified archaeologist and Native American would occur during initial vegetation clearing, site "grubbing," and grading to avoid inadvertent disturbance of an unknown archaeological resource. Mitigation is identified that would address incidental discovery of resources. Therefore, potential impacts would be mitigated to less than significant.

			Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI.		GE	OLOGY AND SOILS				
	Wo	uld t	the project:				
	a.	adv	pose people or structure to potential substantial erse effects, including the risk of loss, injury, or death olving:				
		i.	Rupture of a known earthquake fault, as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.		X		
		ii.	Strong seismic ground shaking?		X		
		iii.	Seismic-related ground failure, including liquefaction?		X		
П		iv.	Landslides?			X	
	b.	Res	ult in substantial soil erosion or loss of topsoil?		X		
	c.	that pote	ocated on a geologic unit or soil that is unstable, or would become unstable because of the project, and entially result in on- or offsite landslide, lateral eading, subsidence, liquefaction or collapse?		X		
	d.	of t	ocated on expansive soil, as defined in Table 18-1-B he Uniform Building Code (1994), creating substantial s to life or property?		X		
	e.	sept whe	ve soils incapable of adequately supporting the use of tic tanks or alternative wastewater disposal systems ere sewers are not available for the disposal of tewater?				X

# Background

Based on the Cal Poly Master Plan and Final EIR (Cal Poly 2001), the project site is not located in a geologically hazardous area. The topography of the site is gently to moderately sloping, and the site is currently developed.

# **Discussion of Checklist Answers**

a.i. The project site is located within a seismically active area of California. The project site is not identified on any Alquist-Priolo Earthquake Fault Zones maps (California Department of Conservation, Division of Mines and Geology 1990); however, the Los Osos Fault, located approximately 3 miles from the project site, is identified under the Alquist-Priolo Earthquake Fault Zone Act and has been active within the last 11,000 years (City of San Luis Obispo 2014). The project site is proximate to several other faults in the central California region including the San Andreas, Nacimiento, Rinconada, Cambria, West Huasna/Oceanic, and Edna faults among smaller, local faults (Cal Poly 2001). Due to the presence of faults within proximity to the project area and the questionable activity level of these faults, the potential for

ground rupture to occur on the project site resulting in damage from surface rupture or fault displacement would be a potentially significant impact. All new building design projects shall be consistent with the California Building Code and the CSU Seismic Policy, which mandates, in part, that all new structures must provide an acceptable level of earthquake safety for students, employees, and the public who occupy these buildings and facilities, to the extent feasible (CSU 2015). Furthermore, the project would not be occupied, except during maintenance activities. With incorporation of these required design standards, impacts would be less than significant.

- a.ii. The Los Osos Fault, located approximately 3 miles southwest of the site, and the San Andreas Fault, located near Parkfield, California, along with other local and regional fault systems, pose risks to the project associated with groundshaking. The most significant event for design of structures is a 6.8 magnitude event along the Los Osos Fault (City of San Luis Obispo 2014). Project design is required to meet or exceed existing building code requirements and standard practices of the Structural Engineer Association of California. Compliance with existing codes and practices will be sufficient to address risks associated with groundshaking. Impacts are considered less than significant.
- a.iii. Liquefaction is amplified groundshaking or instability associated with unconsolidated alluvium. Based on County of San Luis Obispo data, the potential liquefaction hazard is low. The proposed facility would be subject to, and would be required to comply with, the Uniform Building Code which would ensure structural integrity of the proposed project would not be compromised due to liquefaction potential. Final engineering for the maintenance building and all other structural foundations would consider liquefaction potential in the project design. Therefore, impacts would be less than significant.
- a.iv. According to the *Cal Poly Master Plan and Final EIR*, Exhibit 6.3, the proposed project site is not mapped on an area identified as a potential landslide area (Cal Poly 2001), and the topography of the site is gently sloping. Impacts would not occur.
- b. The erosion hazard on the project site is slight to moderate (NRCS 2016). During construction, the project would be required to implement erosion control measures stipulated in a stormwater pollution prevention plan (SWPPP) pursuant to the National Pollutant Discharge Elimination System discharge requirements. Therefore, during construction and over the life of the project, erosion control measures and pollutant discharges would be reduced to levels that are less than significant. Upon completion of decommissioning activities, the site would be reclaimed. As stated in the project description, this will include evaluation of adjacent grasses and vegetation, soil preparation, temporary irrigation, seed/crop/vegetation planting, and watering and fertilization (if necessary). Therefore, impacts are considered less than significant.
- c. Based on review of the Cal Poly Master Plan EIR and review of available soils and geologic information (NRCS 2016; County of San Luis Obispo 2016), there are no geologic or soil units with the potential for instability. The project would not require mass grading, and would not be located on steep slopes. The proposed facility would be subject to, and would be required to comply with, the Uniform Building Code which would ensure structural integrity of the proposed project would not be compromised due to geologic and soil conditions. Final foundation engineering would consider on-site geotechnical conditions in final engineering and project design. Therefore, impacts would be less than significant.
- d. Expansive soils tend to swell with seasonal increases in soil moisture, and shrink during the dry season as soil moisture decreases. These changes can stress and damage slabs, flatwork, and foundations if not addressed. Measures typically recommended to address expansion include amendment of fill material and pre-moistening of subslab materials, use of deepened foundations and a layer of non-expansive material beneath slabs, thickened edges and a layer of non-expansive material beneath flatwork, among other measures. Assuming the underlying soils may be expansive, compliance with standard engineering practices would address this potential impact, and reduce it to less than significant.
- e. The project would not include an onsite wastewater disposal system; therefore, there is no impact.

#### **Mitigation Measures**

None required beyond compliance with existing regulations, codes, and standards.

# Conclusion

Impacts are considered less than significant based on compliance with existing codes and standards, and preparation and implementation of a SWPPP.

Issues VII. GREENHOUSE GAS EMISSIONS Would the project:	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	or
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	

a. Greenhouse gas (GHG) emissions would be generated from construction, operation, and decommissioning of the proposed project. Construction and demolition activities would result in GHG emissions from heavy construction equipment, truck traffic, and worker trips to and from the project site. Operation of the proposed project would generate GHG emissions associated with energy usage required to run the facility and water usage to wash the panels. A substantial increase in vehicle emissions is not anticipated as the proposed project would not be a manned facility.

The APCD has adopted general screening criteria to determine the type and scope of projects requiring an air quality and GHG assessment. The screening criteria are based on the APCD's bright line threshold for annual GHG emissions in units of metric tons of carbon dioxide equivalent (MT CO2E) per year. Table 1-1, Operational Screening Criteria for Project Air Quality Analysis, of the APCD CEQA Air Quality Handbook (APCD 2012) indicates that the screening criteria for a 4-year university or college expected to exceed the APCD annual GHG bright line threshold of 1,150 MT CO2E per year from operational and amortized construction impacts is 464 students. Although the project would not result in an increase in students on campus, it would generate GHG emissions during construction and decommissioning activities. APCD guidance indicates that the short-term GHG emissions from the construction phase should be amortized over the life of the project, which is 25 years for commercial projects. Project-generated construction GHG emissions are anticipated to be negligible when amortized over 25 years (refer to Table 6 below). Development of the proposed project would not generate significant GHG emissions that would result in a cumulatively considerable contribution to climate change impacts (refer to Table 6 below). Regardless, Cal Poly San Luis Obispo's Campus Master Plan and EIR mitigation, and APCD rules, regulations, and policies would be applied as applicable. In addition, the project would provide an additional source of renewable energy, which supports the state's goals for energy conservation and development of renewable energy facilities. Impacts would be less than significant.

Table 6. Comparison of Unmitigated CO2e Emission Impacts to SLOAPCD Significance Thresholds

	CO <sub>2</sub> e MT/year <sup>a</sup>
Project Emissions (Amortized Construction and Operational) <sup>b</sup>	105.26
GHG Bright-line Threshold <sup>c</sup>	1,150
CO <sub>2</sub> e Emissions Exceed Threshold?	No

a Project emissions are the sum of the amortized construction CO2e emissions and operational CO2e emissions.

b CO2e emissions include emissions of CO2, CH4, N2O, HFC, CFC, and F6S.

c Emission thresholds taken from "CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review," SLO County APCD, April 2012.

The sum of the project's amortized construction emissions (over 25 years) plus operational-related GHG emissions is less than 1,150 metric tons per year; therefore, the project's greenhouse gas emissions levels would not exceed stated thresholds. Impacts are considered less than significant.

b. The proposed project would not be subject to the City of San Luis Obispo Climate Action Plan or any other municipal policy related to the reduction of greenhouse gas emissions; however, the project would ultimately support the goals of the Climate Action Plan by developing a new source of renewable energy. In addition, the project's greenhouse gas emissions levels are within thresholds identified by the APCD. Impacts are considered less than significant.

# **Mitigation Measures**

None required.

#### Conclusion

The project's modeled greenhouse gas emissions are under stated thresholds, and the project is intended to provide an additional source of renewable energy, which would reduce greenhouse gas emissions compared to non-renewable sources. Impacts are considered less than significant.

	Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	or
VIII.	HAZARDS AND HAZARDOUS MATERIALS ould the project:				
	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 for people residing or working in the project area?				X
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?		X		

# Background

The Cal Poly San Luis Obispo Environmental Health and Safety department oversees health and safety procedures and programs on campus, including facility construction and operations. The Environmental Health and Safety department develops and implements programs to ensure the safe use, handling, and storage of hazardous materials, and appropriate and compliant disposal of hazardous wastes. The department oversees and implements employee training programs, procedures and policies, and compliance surveys to this end.

## **Discussion of Checklist Answers**

a., c. Construction of the facility would require the use of standard equipment, fuels, oils, and other materials within the University campus. Minor or accidental spills or leaks could result in public exposure to

potentially hazardous materials both on and off-site, resulting in a potentially significant impact. These potential impacts would be reduced by compliance with existing Occupational Safety and Health Administration (OSHA) and California Division of Occupational Safety and Health (Cal/OSHA) construction standards. In addition, as discussed in Section VI Geology and Soils, and Section IX Hydrology, preparation and implementation of a SWPPP and Construction Spill Response Plan would be required, which would avoid or minimize the potential for off-site exposure.

Construction activities at the project site could potentially disturb soils containing naturally occurring asbestos, and could result in the accidental release of hazardous materials to the environment and release of materials within 0.25 mile of an existing school (Cal Poly); no other schools are located within 0.25 mile of the project site.

The project would emit emissions during construction and operation, however, those emissions levels, including Diesel Particulate Matter (DPM) are within acceptable thresholds once mitigation is applied. The proximity of sensitive receptors (rural residential area on the west side of Highway 1 and students and workers within nearby agricultural areas) poses special conditions which warrant additional mitigation, particularly addressing idling of vehicles, which is addressed under "Air Quality" and noted mitigation measures.

The panels would be made of crystalline silicon with an anti-reflective coating, and would not consist of any potentially hazardous materials. The proposed gen-tie line (or similar connection to the existing Goldtree substation) would be located within the same utility corridor as the existing lines, which is located over approximately 1,000 feet from potential sensitive receptors including development west of Highway 1. The California Men's Colony and existing agricultural orchards are located approximately 700 feet from the existing substation and power lines, and would not be adversely affected by the new connection.

Operation of the proposed project would involve the regular storage, use, and disposal of potentially hazardous materials including fuels, mechanical oil, transformer oil, cooling fluid. The University may also apply herbicides to manage vegetation in and around the facility. These materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. In addition, the campus maintains a Hazardous Materials Management and Response Plan that addresses the handling of and risks associated with hazardous materials. The Project does not propose storage or use of new hazardous materials that would not be addressed by the existing Management Plan (Cal Poly 2001); additional mitigation is identified below to further mitigate potential impacts to campus agricultural land and surrounding areas. Therefore, impacts would be considered less than significant.

During decommissioning, there is a potential for exposure to potentially hazardous materials if the facility components are not property stored, recycled, or disposed. Implementation of mitigation identified below would address this potential impact.

Therefore, based on compliance with existing regulations, the campus Hazardous Materials Management and Response Plan, SWPPP, Construction Spill Response Plan, and hazardous materials mitigation identified below, the project will not create a substantial risk to people or the environment associated with the routine use, transport or disposal of hazardous waste. Potential impacts would be mitigated to less than significant.

b. Upset and accident conditions which may release hazardous materials into the environment are most likely during the construction phase of the project. Construction equipment, if damaged, can release fuel, oil, lubricants and other materials into the environment and expose workers and the campus population, in addition to potential contamination of agricultural land. The campus requires contractors to prepare, maintain and implement management plans for upset and accident condition on-site, including protocols for stop work, spill containment, notification and remediation. These measures, in addition to mitigation identified below, are considered sufficient to reduce risks associated with accidents. Impacts are considered less than significant.

- d. The site is not a known hazardous waste or materials site (Envirostor 2016; Geotracker 2016). There is no impact.
- e-f. The project is not located in the vicinity of a public or private airport. The closest airport, San Luis Obispo County Regional Airport, is located approximately five miles to the south and there are no airstrips on campus. At times, pilots of planes and helicopters in the vicinity of the project site may experience glare from the solar panels; however, the duration of exposure would be short due to the relative height and speed or aircraft. Application of an anti-reflective coating on the solar panels would reduce this potential adverse impact to less than significant.
- g. Construction and operation of the proposed project would be subject to State Fire Marshall inspection and approval prior to operation, which would ensure appropriate emergency access is provided to and within the facility. Based on the location of the facility, its construction and operation would not affect emergency access to existing campus facilities, agricultural areas, and the water treatment plant located east of the project site. Construction and operation of the facility would be governed by the Cal Poly San Luis Obispo Campus Emergency Management Plan, which includes action response protocol in the event of a number of major disasters. Therefore, impacts would be less than significant.
- h. The project site is located within an urban/wildland interface area, which includes agricultural fields, natural vegetation, and grasslands that constitute a moderate fire hazard. During construction, there is a potential fire risk due to use of equipment and increased human presence and activities that could ignite vegetation and result in a wildfire, resulting in a potentially significant impact. The proposed project would comply with the local fire code and as stated in response g) above, and State Fire Marshal inspection and approval would ensure adequate emergency access is provided under proposed project design. Moreover, the proposed project, in the context of the overall campus, would be governed by the Cal Poly San Luis Obispo Campus Emergency Management Plan, which includes action response protocol in the event of a major fire. Based on compliance with existing regulations and mitigation identified below, potential impacts would be mitigated to less than significant.

#### **Mitigation Measures**

- HM-1 Prior to the construction and decommissioning phases of the project, the contractor shall submit a site-specific spill response plan to the University for review and approval, which shall include the following elements:
  - a. General information including:
    - 1. Name and location of solar facility; description of facility operations; construction manager and emergency coordinator names and phone numbers.
    - 2. Description of what is stored at the facility (contents and volume).
    - 3. Site diagram showing: hazardous materials storage areas; drains and culverts; surface waters and natural drainages; buildings; and surrounding land uses within 1,000 feet of the project site boundary.
  - b. A description of prevention measures to be taken at the project site, such as secondary containment, employee training, and proper storage. Products shall be kept in their original containers with the original manufacturer's label and resealed when possible, and the manufacturer's recommendation for proper disposal shall be followed. The contractor shall perform routine inspections to ensure that all materials onsite are being stored and disposed of in an appropriate fashion.
  - c. Preparedness: A description of the planned onsite equipment for spill response and its location. Spill clean-up materials and equipment appropriate to the type and quantity of hazardous materials shall be located onsite and personnel made aware of their location. Key employees shall be trained in spill response procedures in accordance with local, State, and federal regulations. Material safety data sheets (MSDSs) shall be kept onsite during construction, operation, and decommissioning of the solar farm. Spill response materials including brooms, dust pans, mops, rags, gloves, absorbent

pads/pillows/socks, sand/absorbent litter, sawdust, and plastic and metal containers will be kept onsite. The spill response plan shall also specify:

- 1. The University's Hazardous Materials Management and Response Plan and spill response training.
- 2. Local, state, and federal regulatory agency reporting procedures and phone numbers, as well as emergency response contractor contact information and local hospital contact information.
- d. Response Procedures: An outline of emergency response procedures, including physical spill cleanup procedures, reporting requirements, and stabilization techniques. Spill guidelines shall include the following:
  - 1. All spills shall be immediately cleaned up upon discovery;
  - 2. The spill area shall be kept well ventilated and personnel shall wear the appropriate protective clothing to prevent injury when cleaning up a spill;
  - 3. Reportable quantities of spills of hazardous materials shall be reported to the appropriate local, state, and federal authorities.
  - 4. All vehicles leaking oil or fluids shall be scheduled for maintenance, and drip plans shall be placed under the leak when parked prior to the maintenance event.
  - 5. A list of contact information for the appropriate local, state, and federal authorities shall be located in the transformer oil and hazardous materials transportation vehicle(s) at all times. Transformer oil spills during transportation shall be immediately reported to the appropriate local, state, and federal authorities.
- HM-2 During the construction and operational phases of the project, if herbicides are used to manage vegetation onsite, the contractor or personnel applying herbicides shall comply with all state and local regulations regarding herbicide use. Herbicides shall be mixed and applied in conformance with the product manufacturer's directions. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and material safety data sheets (MSDSs) for all hazardous materials to be used. To minimize harm to wildlife, lifestock, vegetation, and waterbodies, products identified as non-toxic to birds, small mammals, and livestock shall be used, and herbicides shall not be applied within 60 feet of any surface waterbody when water is present. Herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water. Herbicides shall not be applied when wind velocity exceeds 10 miles per hour. If spray is observed to be drifting to a non-target location, spraying shall be discontinued until conditions causing the drift have abated.
- HM-3 Prior to the start of photovoltaic installation, in order to reduce hazards related to the effects of glare, the contactor shall install anti-reflective coating on the glass surfaces of panels.
- HM-4 Prior to construction, a State Fire Marshall-approved or Cal Fire-approved fire safety plan shall be prepared for use during construction and operation. The fire safety plan shall contain notification procedures and emergency fire precautions including, but not limited to, the following:
  - a. Identification of a water source for fire suppression, including onsite water storage for immediate use if necessary.
  - b. Maintained vegetation clearance including a 30-foot clearance around onsite building(s) and 10-foot clearance around all other onsite structures.
  - c. All internal combustion engines, stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order.
  - d. Light trucks and cars with factory installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. Said vehicle types shall maintain their factory installed (type) muffler in good condition.
  - e. Fire rules shall be posted in an area visible to employees.

- f. Equipment parking areas and small stationary engine sites shall be cleared of all extraneous flammable materials.
- g. Personnel shall be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats.
- h. Smoking shall be prohibited within the construction site.
- HM-5 Prior to energization or final inspection, whichever occurs first, the contractor shall install electrical safety signage on all solar arrays in the immediate vicinity of all wiring and on all electrical conduit using weather resistant and fade proof materials. The purpose of this measure is to reduce the risk of electric shock and fire. Warning signs shall be designed to be evident to any person tampering with, working on, or dismantling project photovoltaic panels. Signs shall read: "CAUTION: Solar PV Wiring May Remain Energized After Disconnection During Daylight Hours. Tampering With Wiring May Result in ELECTRIC SHOCK or FIRE. Death or Serious Injury May Result. Do Not Expose Wires to Vegetation or Other Flammable Materials."
- HM-6 Prior to decommissioning, the contractor shall submit a recycling and disposal plan for photovoltaic panels and support structures for University review and approval, in order that project structures not pose a risk to human health or the environment after project decommissioning. The plan shall specify how these project components will be disposed of in a manner that will not pose a risk to human health or the environment.

#### Conclusion

Temporary risks associated with construction are addressed by mitigation in the Air Quality section, mitigation above, and current University practice, which includes requirements to maintain and implement spill response plans for all large construction projects and comply with the Fire Code. Based on compliance with existing regulations and implementation of identified mitigation measures, impacts associated with hazards and hazardous materials are considered less than significant.

		Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	or
IX.		HYDROLOGY AND WATER QUALITY				
	Wo	uld the project:				
	a.	Violate any water quality standards or waste discharge requirements?		X		
	b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			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, in a manner which would result in substantial erosion or siltation on- or offsite?		X		
	d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?		X		
	e.	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?		X		
	f.	Otherwise substantially degrade water quality?			X	
	g.	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
	h.	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
	i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
	j.	Inundation by seiche, tsunami, or mudflow?				X

# Background

The development footprint of the proposed facility was delineated to avoid direct disturbance of drainages located in the area. One of these drainages flows under Highway 1 onto the project site, and continues northwest through the western corner of the site towards the Men's Colony. The drainage flows into Chorro Creek approximately 0.5 mile northwest of the project site. There are several other drainage swales located to the east of the project site, and one located near the northern corner near an existing orchard; these swales do not flow through the proposed development area.

During construction, operation, and decommissioning activities, gasoline, diesel fuel, lubricating oils, a. grease, and solvents could be used on the project site. Accidental spills of these materials during construction activities could result in potentially significant water quality impacts. In addition, construction of the project would require approximately 20-40 acres of ground disturbance, and soils loosened during excavation and grading could degrade water quality if mobilized and transported off site via water flow. As grading, construction, and decommissioning activities may occur during the rainy season or during a storm event, construction of the proposed project could result in adverse impacts to water quality. Because the project site would be greater than 1 acre, incorporation of an SWPPP and implementation of appropriate best management practices (BMPs) would be required during project construction as part of the project's General Construction Activity Stormwater Permit issued by the Regional Water Quality Control Board. The SWPPP identifies which structural and nonstructural BMPs will be implemented, such as sandbag barriers, temporary desilting basins, gravel access roads, dust controls, and construction worker training. In addition, Cal Poly has developed a Water Quality Management Plan and a Storm Water Pollution Prevention Program for development on campus (Cal Poly 2005). The Water Quality Management Plan outlines best management practices (BMPs) for construction and operation, which would be applicable to the project.

Operation of the project is not considered a substantive risk to water quality standards. The preparation and implementation of a SWPPP and compliance with the University's *Water Quality Management Plan and a Storm Water Pollution Prevention Program* will be sufficient to reduce risks of water quality standard violation. Impacts are considered less than significant.

- b. The University is served by Whale Rock Reservoir via the City's treatment plant. Estimated water demand would be approximately 1 acre-foot during the two-month construction period, up to 6 acre-feet per year to establish landscape screening, and approximately 1 acre-foot per year during operation. Therefore, water use required during construction and operation of the project would not deplete groundwater levels.
  - Upon construction, permanent impervious surfaces would be limited to the maintenance facility and associated foundation and tracker and equipment foundations. Although the facility has not yet been designed, it can be conservatively assumed that for an approximately 10 percent (approximately 2 acres) of the approximately 20-acre facility site would be converted from pervious to impervious surfaces. Based on the nature of the facility, which would allow for rainfall and wash-water to run off the panels and infiltrate into the ground, the project would not substantially interfere with groundwater recharge. In addition, implementation of identified mitigation (refer to response to c., d., e. below) would require preparation and implementation of a drainage plan that would maximize groundwater recharge in a non-erosive manner.
- c,d,e. The proposed has been designed to avoid direct disturbance of existing drainages and swales proximate to the development area. No mass grading resulting in major topographical changes are proposed. In addition to compliance with an approved SWPPP, development and implementation of a site specific drainage plan would be required to manage stormwater runoff from the facility area, and any runoff generated during periodic panel washing. Mitigation is identified below, including performance standards to ensure the project does not result in erosion or siltation on or off-site, including avoidance of discharge into the northwestern drainage, which flows into Chorro Creek approximately 0.5 mile from the project site.
  - As noted in b. above, runoff generated by the project would not be discharged directly into exiting drainages and culverts proximate to the project site. Rain and wash-water would flow from the panels into the ground, to allow for natural infiltration into the underlying soils. Preparation and implementation of a drainage plan as identified as mitigation below would ensure that the project would not overburden existing culverts both proximate to the project site, and upstream within Chorro Creek.
- f. The project will not otherwise substantially degrade water quality. The project contains no special uses which would pose a risk to water quality. Impacts are considered less than significant.
- g-j. The project site is not located in a 100-year flood hazard area. The project is not located in an area at risk from inundation by dam or levee failure, and is not in an area at risk of mudflow, tsunami or seiche. There is no impact.

#### **Mitigation Measures**

- HYD-1 Prior to construction, the University shall prepare a drainage plan and supportive hydrologic analysis demonstrating compliance with the following or equitable measures to maximize groundwater recharge and maintain existing rain event flow rates and patterns:
  - a. Off-site runoff shall not exceed existing flow rates during storm events.
  - b. If required to maintain the current flow rate, detention/retention basins shall be installed to reduce local increases in runoff, particularly on frequent runoff events (up to 10-year frequency).
  - c. If proposed, drainage discharge points shall include erosion protection and be designed such that flow hydraulics exiting the site mimics the natural condition as much as possible.
  - d. Drainage from impervious surfaces (e.g., roads, driveways, buildings) shall be directed to a common drainage basin.
  - e. Where feasible, grading and contouring shall be done in a way to direct surface runoff towards the above-referenced basins (and/or closed depressions).
- HYD-2 Prior to construction, drainage control and erosion control Best Management Practices (BMPs) shall be shown on all applicable construction plans. During construction, all grading activities shall occur during the dry season months, which are typically May through October. Alternatively, a settling pond shall be installed on the construction site with sufficient capacity to contain expected runoff during a rainfall event and located be able to catch all runoff from the 'active' area. If construction occurs during wet season months, which are typically November through April, all construction activities shall cease during rainfall events when rutting occurs across greater than 10 percent of a road or when rills more than 10 feet in length develop and lead off the road surface in the work area. The construction manager/contractor shall be responsible for suspending construction activities until the rainfall event has ceased and repairs to the rutting and/or rilling damage have been implemented. Approved drainage control and erosion control BMPs shall be in place prior to the typical wet season months (November 1).
- HYD-3 Prior to construction permits, a Sedimentation and Erosion Control Plan shall be prepared as a supplement to the project's required SWPPP to minimize potential downstream sedimentation. This Plan shall minimize the potential for project sediment to leave the project site and its components shall be incorporated into all applicable construction plans. During construction, at a minimum, straw wattles (or comparably effective devices [as determined by the onsite Civil Engineer, in consultation with the University]) shall be placed on the downslope sides of the proposed work which would direct flows into temporary sedimentation basins. This shall be checked and maintained regularly and after all larger storm events. All remedial work shall be done immediately after discovery so sedimentation control devices remain in good working order during the entire construction phase.
- HYD-4 Prior to the construction and decommissioning phases, the construction manager/contractor shall identify the location of all fuels and hazardous materials storage areas on construction plans. Storage of fuels and hazardous materials shall be prohibited within 200 feet of surface water features, drainage swales, actively farmed agricultural areas, and private groundwater supply wells, and within 400 feet of community or municipal groundwater supply wells (if it is determined that such wells exist on or in close proximity to the project site).
- HYD-5 During ground disturbing activities, construction, operation, and decommissioning, all vehicles and equipment, including all hydraulic hoses, shall be maintained in good working order so that they are free of any and all leaks that could escape the vehicle or contact the ground, and to ensure that any leaks or spills during maintenance or storage can be easily and properly removed.

#### Conclusion

The project will be designed to comply with currently applicable codes, and the project will be required to have an SWPPP prepared, approved and implemented. The site is not subject to special hydrologic hazards. Impacts associated with hydrology and water quality would be mitigated to less than significant.

	Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	or
X.	LAND USE PLANNING  Tould the project:				·
a	. Physically divide an established community?				X
ŀ	o. 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	
C	. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

- a. The project site is located within the extended campus, and would not physically divide an established community. There is no impact.
- b. The project site is located within the Extended Campus, within Cheda Ranch, within an area identified as "Goldtree Site" in the Master Plan. Land uses identified for this area include "Areas Suitable for Ancillary Activities and Facilities" and "Outdoor Teaching and Learning" (Land Use, San Luis Creek Watershed, Exhibit 5.1). The Outdoor Teaching and Learning element identifies the variety of "living laboratories" provided on the University campus (e.g., agricultural fields and units, ecological study areas, and design village), which are central to Cal Poly's mission and must remain integrated with the campus. The project site is part of the Campus Farm sheep unit, and is currently used for rangeland and livestock grazing.

The Master Plan identifies the "Goldtree Site" as potential remote vehicle storage and parking, possibly consolidated with an applied research park. As described in the Master Plan, research park would focus on applied research and advanced development activity in support of the University's academic mission, including applied research partnerships, incubator support for new technology, and business development. Additional facilities conceptually suggested in the Master Plan include a conference center or similar ancillary activities, ranging in size from 300,000 to 600,000 square feet.

The proposed project was not specifically identified in the Master Plan; however, the Sustainable Campus Planning and Design component of the Public Facilities and Utilities element describes the physical facilities and infrastructure required to support campus operations. In addition to energy efficient building design and resource conservation, the Master Plan notes that "alternative, renewable energy sources should be used to the greatest extent possible to offset growth in demand", including integrated photovoltaics and solar-generated energy.

Consistent with the Master Plan, the project would avoid prime agricultural land, and would incorporate mitigation measures intended to avoid or minimize potentially significant impacts associated with development of the "Goldtree Site". Therefore, the proposed project would not 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, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

c. There are no HCPs or NCCPs which cover the project site. There is no impact.

# Mitigation Measures

No additional mitigation required.

# Conclusion

There would be no adverse land use planning impacts as a result of the project.

	Issues	Potentially Significant New or Increased Impact	Less than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	No New or Increased Impact
XI.	MINERAL RESOURCES ould 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

a-b. There are no known mineral resources located within the project site. There is no impact.

# **Mitigation Measures**

None required.

# Conclusions

There would be no impact to mineral resources as a result of the project.

		Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	or
XII.		NOISE				
	W	ould the project result in:				
	a.	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
	b.	Exposure of persons to or generation of excessive groundbourne vibration or groundbourne noise levels?			X	
	c.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
	d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		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 expose people residing or working in the project area to excessive noise levels?				X
	f.	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

a-d. The existing ambient noise environment includes roadway traffic along State Route 1. Based on the County of San Luis Obispo Noise Element (San Luis Obispo County 1992), the 70 decibel (db) noise contour associated with Highway 1 extends approximately 100 feet from the eastern edge of the road shoulder. The 65 db noise contour extends approximately 270 feet from the eastern edge of the road shoulder. Additional sources of noise in the area include activities at the California Men's Colony (approximately 700 feet from the project site) and agricultural activities in the area. The closest sensitive receptors are approximately 750 feet from the project site, and are located west of Highway 1. The project will generate both construction-related and operational noise. Each is addressed in the following paragraphs.

Construction-related Noise. Construction-related noise is a short-term, periodic, and temporary impact of the project. Earthmoving, materials handling, stationary equipment, and construction vehicles generate noise during clearing, excavation, grading, structure, and utility construction. Typical construction equipment noise levels are provided in Table 7. Actual noise levels at receiving site such as residences will vary based on the type and volume of equipment present and operating on the site at any one time. During construction activity, noise would potentially impact or annoy sensitive land uses, including: residences west of Highway 1; faculty, staff, and students participating in outdoor learning activities; and employees and occupants at the California Men's Colony.

Table 7. Typical Construction Equipment Noise Levels

Type of Equipment	Maximum Level, dB (50 ft)
Scrapers	88
Bulldozers	87
Backhoe	85
Pneumatic Tools	85

Source: Student Housing South EIR 2014

Construction noise will be temporary, restricted to daylight hours, and further conditioned by distances between the project site and noise sensitive receptors and the application of Master Plan mitigation identified below. The project is not expected to require pile drivers, or other atypical equipment, which would increase potential for vibration or noise above typical levels. Construction-related trips would contribute to transportation-related noise along Highway 1; however, the increase would be less than 1% of the current average daily traffic, and would therefore not result in a noticeable change in transportation-related noise levels. Impacts associated with construction noise are therefore considered less than significant.

<u>Operation-related Noise.</u> Operational noise would be generated by maintenance trucks and vehicles, panel washers, and electrical equipment, including inverters and transformers. Based on the distance between the proposed facility and noise sensitive uses (700 feet) any increase in noise levels during operation would be less than significant.

e-f. The proposed project site is not located within an airport land use plan, and is not located within 2 miles of a public or private airstrip. The closest airport is the San Luis Obispo County Regional Airport, located approximately five miles from the project site. Therefore, noise associated with airports would be less than significant.

#### Mitigation

To ensure construction noise impacts are reduced to a level that is less than significant, MM N-1 is provided in accordance with the *Cal Poly Master Plan and Final EIR* (Cal Poly 2001):

MM N-1: Cal Poly shall apply the following during construction:

# Cal Poly Standard Requirements

- A. The requirements of the Article are in addition to those of Article 4.02 of the Contract General Conditions.
- B. Maximum noise levels within 1,000 feet of any classroom, laboratory, residence, business, adjacent buildings, or other populated area; noise levels for trenchers, pavers, graders and trucks shall not exceed 90 dBA at 50 feet as measured under the noisiest operating conditions. For all other equipment, noise levels shall not exceed 85 dBA at 50 feet.
- C. Equipment: equip jackhammers with exhaust mufflers and steel muffling sleeves. Air compressors should be of a quiet type such as a "whisperized" compressor. Compressor hoods shall be closed while equipment is in operation. Use electrically powered rather than gasoline or diesel powered forklifts. Provide portable noise barriers around jack hammering, and barriers constructed of 3/4-inch plywood lined with 1-inch thick fiberglass on the work side.
- D. Operations: keep noisy equipment as far as possible from noise-sensitive site boundaries. Machines should not be left idling. Use electric power in lieu of internal combustion engine power wherever possible. Maintain equipment properly to reduce noise from excessive vibration, faulty mufflers, or other sources. All engines shall have properly functioning mufflers.
- E. Scheduling: schedule noisy operations so as to minimize their duration at any given location, and to minimize disruption to the adjoining users. Notify the Trustees and the Architect in advance of performing work creating unusual noise and schedule such work at times mutually agreeable.
- F. Do not play radios, tape recorders, televisions, and other similar items at construction site.

- G. When work occurs in or near occupied buildings, the Contractor is cautioned to keep noise associated with any activities to a minimum. If excessively noisy operations that disrupt academic activities are anticipated, they must be scheduled after normal work hours.
- H. All work in the area of the residence halls will be restricted to 10:00 a.m. to 10:00 p.m., seven days per week, throughout the year. No work will be allowed in the residence hall areas during the finals week. University reserves the right to stop construction work, including but not limited to noisy work, during the following events: Spring and Winter Commencement, Open House, Finals Week, residence hall move-in, or at other times that may be identified by the University. University reserves the right to stop noisy work at any time when said work disrupts classes or other planned events.

## Conclusion

Impacts associated with noise are considered less than significant.

		Significant	Less Than Significant New or Increased	Significant	No New
	Issues	New or Increased Impact	Impact With Mitigation Incorporated	New or Increased Impact	or Increased Impact
XIII.	POPULATION AND HOUSING				
W	ould the project result in:				
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 housing, necessitating the construction of replacement housing elsewhere?				X
c.	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

a. The project will serve an existing student population, and will not result in extension of infrastructure to new locations. The project will not, therefore, induce population growth. Impacts are considered less than significant.

b-c. The project will not displace housing or populations. There is no impact.

# **Mitigation Measures**

None required.

## Conclusion

Impacts to population and housing are considered less than significant.

		Less Than		
	Potentially	Significant New	Less Than	
	Significant	or Increased	Significant	No New
	New or	Impact With	New or	or
	Increased	Mitigation	Increased	Increased
Issues	Impact	Incorporated	Impact	Impact

#### XIV. PUBLIC SERVICES

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:

i.	Fire protection?	X	
ii.	Police protection?	X	
iii.	Schools?		X
iv.	Parks?		X
v.	Other Public Facilities?		X

#### **Discussion of Checklist Answers**

- a-i. The campus is served by the California Department of Forestry and Fire Protection (CAL FIRE) for emergency response and fire suppression. The project would be designed to meet or exceed applicable fire code requirements, including preparation and implementation of a Fire Safety Plan. Impacts are considered less than significant.
- a-ii. The campus is served by University police. The University police may call upon City and County of San Luis Obispo law enforcement for backup as needed. The project would not alter enrollment; therefore, the total population served by University police would be unchanged. Proposed security features include locked gates and fencing to minimize the potential for illegal activity requiring police response. No new or physically altered police facilities are anticipated as a result of this project; therefore, no environmental impacts associated with construction of new facilities are expected. Impacts are considered less than significant.
- a-iii. The project would not increase populations of school-age children, or otherwise increase potential demand for school facilities. There is no impact.
- a-iv. The project would not increase student enrollment or population in the city, necessitating additional park space. There is no impact.
- a-v. The project would not adversely impact other governmental facilities such as libraries or government functions. There is no impact.

## **Mitigation Measures**

None required.

#### Conclusion

Impacts to public services are considered less than significant.

		Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	or
XV.		RECREATION				
	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	

a-b. Existing athletic, recreational, and open space areas are provided on campus for use by students and the campus community. The project would not generate additional demand for recreational facilities, and would not increase use of city parks or recreational facilities or result in substantial physical deterioration of city facilities. The project would not result in construction of recreational facilities which may adversely affect the environment. The project would not increase enrollment and therefore would not result in additional impacts to existing campus recreational facilities. Impacts are less than significant.

# **Mitigation Measures**

None required.

#### Conclusion

Impacts to recreation are considered less than significant.

		Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	or
XVI.		TRANSPORTATION/TRAFFIC				
	W	ould the proposal:				
	a.	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			X	
	b.	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			X	
	c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X	
	d.	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		X		
	e.	Result in inadequate emergency access?		X		
	f.	Result in inadequate parking capacity?			X	
	g.	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

#### **Background / Regulatory Setting**

The project would add traffic to transportation facilities operated by the CSU system, California Department of Transportation (Caltrans), and the City of San Luis Obispo. Excerpted standards relevant to the proposed project and study locations are summarized below.

**California State University.** The CSU *Transportation Impact Study Manual* notes the following thresholds of significance for off-site transportation impacts:

- A roadway segment or intersection operates at LOS D or better under a no project scenario and the
- addition of project trips causes overall traffic operations on the facility to operate unacceptably (LOS E or F).
- A roadway segment or intersection operates at LOS E or LOS F under a no project scenario and the project adds both 10 or more peak hour trips and five seconds or more of peak hour delay, during the same peak hour. If an intersection operates at a very poor LOS F (control delay of 120 seconds or more), the threshold of significance shall be an increase in v/c ratio of 0.02 or more.

**Caltrans.** Caltrans' *Guide for the Preparation of Traffic Impact Studies* notes that "Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities...If an existing State highway facility is operating at less than the appropriate target LOS, the existing measure of effectiveness should be maintained."

- a,b. The project site is currently accessed via an existing road, which provides access to the grazing area onsite and farming operation east of the project site. The approach to Highway 1 is at grade, and there is a solid median barrier on Highway 1 between the northbound and southbound travel lanes. Based on traffic count data, the Annual Average Daily Traffic (AADT) ranges from 24,700 to 24,500 northbound trips and 26,400 to 20,300 southbound trips. Under a worst case scenario, the project could generate up 110 daily construction trips (round-trips). This would represent less than a 1% increase in traffic over the approximately 3-month grading and construction period. During operation, the project would generate approximately 1-2 maintenance trips per month, and approximately 8 operational trips per annual panel washing. This minimal level of trip generation would not have an adverse effect on traffic operations or increase congestion on Highway 1 in the long-term. Therefore, potential impacts related to congestion would be less than significant.
- c. The proposed facility would not be located within a Safety Area, as identified in the San Luis Obispo County Airport Land Use Plan (San Luis Obispo County 2005). At times, pilots of planes and helicopters in the vicinity of the project site may experience glare from the solar panels; however, the duration of exposure would be short due to the relative height and speed or aircraft. Application of an anti-reflective coating on the solar panels, as proposed by the University, would reduce this potential adverse impact to less than significant.
- d. The project does not include any design features that may result in a hazard; the facility would continue to be accessed similar to existing conditions. During construction, construction equipment and hauling trucks and trailers would use Highway 1 to access the site, via the existing at-grade intersection. The presence of a solid median would require vehicles and trucks exiting the site to turn right, heading north on Highway 1. The nearest intersection that would allow for a safe and legal left turning movement would be located at Kansas Avenue, approximately 1.5 mile north of the project site. Mitigation is recommended to require the construction manager or contractor to prepare a "Construction Traffic Management and Safety Plan" to ensure all personnel are trained and aware of safe ingress and egress from the project site. Based on implementation of this plan, potential impacts would be mitigated to less than significant.
- e. Construction and operation of the proposed project would be subject to State Fire Marshall inspection and approval prior to operation, which would ensure appropriate emergency access is provided to and within the facility. Emergency responders would access the project site via Highway 1, and internal emergency access would be provided within the facility itself, based on review and approval by the State Fire Marshall. Therefore, potential impacts would be less than significant.
- f. The project would provide temporary parking and staging areas for construction personnel within the project site. During operation, minimal parking is needed to accommodate maintenance vehicles, which would be provided near the proposed maintenance building. Therefore, no significant impact would occur.
- g. Based on the nature and location of the project, it would not conflict with any adopted policies, plans, or programs supporting alternative transportation. Therefore, no impact would occur.

#### **Mitigation Measures**

To ensure traffic safety impacts are less than significant, MM TR-1 is provided in accordance with the Cal Poly Master Plan and Final EIR (Cal Poly 2001):

MM TR-1: Circulation Plan. Where vehicle and pedestrian routes and residential areas conflict with construction activities, a circulation plan will be developed, which will include warning signs and detours, as well as efforts to minimize noise in residential areas.

In addition, the following mitigation is recommended:

- TR-1 Prior to construction, the University shall ensure that a "Construction Traffic Management and Safety Plan" is prepared to ensure all personnel are trained and aware of safe ingress and egress from the project site. The plan shall include, but not be limited to:
  - a. Identification of the construction traffic route, including ingress and egress to and from the project site.
  - b. Prohibition of the use of Colony Drive (California Men's Colony access entrance) for u-turns either on Highway 1 or within the California Men's Colony property.
  - c. Installation of temporary signage on Highway 1, pursuant to approval/encroachment permit from the California Department of Transportation notifying northbound vehicles and bicyclists of the construction area and construction access point.
  - d. Avoidance of haul and construction trips during AM and PM peak hours to the maximum extent possible.
  - e. Maximum 10 mph speed on the proposed access road.

#### Conclusion

Potential transportation and traffic impacts would be short-term, and limited to the construction and decommissioning phases, and mitigation is identified to address potential safety impacts at the proposed access road intersection and Highway 1. Operational trips would be minimal and periodic, and would not measurably contribute to congestion. Therefore, impacts associated with transportation and traffic are considered less than significant.

	Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant New or Increased Impact	or
XVII.	UTILITIES AND SERVICE SYSTEMS  ould the project:				
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
C.	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could have significant environmental effects?			X	
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements necessary?			X	
e.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g.	Comply with federal, state, and local statutes and regulations related to solid waste?			X	

- a., b. The proposed project does not include wastewater treatment facilities or connection to any existing sewer system; therefore, no impact would occur.
- c. Aside from onsite stormwater management, the project would not require or result in the construction of new storm water drainage facilities.
- d. The University obtains water from both surface and groundwater sources. Cal Poly owns 33.71% capacity in Whale Rock Reservoir, located east of the town of Cayucos. The 33.71% ownership translates into approximately 13,136 acre feet. The City, which also has ownership in the reservoir, has modeled safe annual yields (SAY) for water users. The SAY for Cal Poly's share was recently estimated at 1,306 afy in December 2013. Average total Cal Poly demand for the last 3 years on record is 1,071 afy. Agricultural and landscape irrigation demand is a significant portion of the total; average agricultural demand for the same period was 501 acre feet (47% of total) and annual water demand for irrigation averaged 280 acre feet (26%). Approximately 289 AFY (27%) was used for indoor or domestic purposes during that period. The current Cal Poly water surplus for Whale Rock Reservoir averages 235 AFY. When groundwater supplies are included, as discussed below, the current Cal Poly water surplus averages 482 AFY (Cal Poly 2014).

According to the University's 2015 Drought Response Plan (Cal Poly 2015), Cal Poly has been an excellent steward of its water resources, having implemented hundreds of conservation measures over the years. Total usage since 2003 has remained nearly flat despite a 60% growth in building square footage and 100% growth of on-campus residency over the same period. Cal Poly still maintains nearly 6 years of supply in Whale Rock Reservoir. Water from Whale Rock Reservoir is treated at the Stenner Canyon water treatment facility, located east of the project site. Peak treatment capacity is 16 mgd. Water treated at the plant comes from Whale Rock Reservoir, the Nacimiento Water Project, or the Salinas Reservoir. Cal Poly is entitled to 1,000 AFY in treatment capacity at the plant. Cal Poly's domestic demand from the plant has averaged 544 AFY in the last 3 years (551 in 2010, 552 in 2011, and 529 in 2012), or 54.4% of its treatment capacity (Cal Poly 2014). Projects under construction which are not represented in the existing demand are as follows:

- Wine and Viticulture Center (22,000 square feet of production/lab/office space in planning) consolidation of existing functions and (3) new staff
- Center for Science (completed in 2013) (11) additional students, (0) additional staff
- Recreation Center (completed 2012) minor increase in professional staff, mainly student staff
- Vista Grande and Culinary Support Center demolition of existing Vista Grande and Sage Restaurant, reconstruction of new Vista Grande, expansion of existing storage facility to create a Culinary Support Center

The proposed project would not require any water or sewer connections. The facility would be unmanned. Maintenance would occur up to once a month, resulting in approximately 1-2 operational trips per month. Operational water would be provided by existing water hydrants on campus, and transported to the project site via water trucks and would be used for panel washing approximately twice a year (approximately .07 acre feet per year). Additional water demand would include approximately 1-5 acre feet per year to irrigate landscape screening, until established. The existing infrastructure that provides non-potable water to livestock watering troughs would be used to establish the vegetation. Therefore, the total anticipated operational water demand in the short-term would be approximately 6 acre feet per year; long-term demand would be 1 acre foot per year. Total project demand, including existing and approved project demand, would not exceed the safe annual yield (refer to Table 8 below). Therefore, impacts to water supply are considered less than significant; there is adequate existing supply to meet project demand.

Table 8. Existing + Project Water Demand

Use	Total Water Usage (afy)
Existing Domestic (3-year average)	289
Approved Domestic Projects, Enrollment, Staff, and Faculty	72.22
Existing Non-Potable (Agriculture, Irrigation)	782
Approved Non-Potable Projects	7.7
Proposed Project	6
Total Demand	1,157
Whale Rock Reservoir Supply	1,306
Groundwater Supply	247
Total Supply	1,553
Surplus	396

Source: Cal Poly 2014, 2015

Based on the analysis above, implementation of the project would not result in any significant impacts related to water demand.

f, g. Cal Poly operates an integrated waste management program that includes source use reduction, recycling, composting of food waste, greenwaste, and manure, resale of scrap metal and surplus equipment, and zero waste event catering. Cal Poly contracts with San Luis Garbage for collection of solid waste and recycling. Recycling containers are provided to faculty, staff, and students by Facility Services, and collection is performed by Custodial Services and the campus Recycling Coordinator. Cal Poly has a 50% diversion goal for solid waste. The University has met or exceeded that goal since 2003, with almost 80% diversion achieved in 2010. Paper, cardboard, aluminum, glass and plastics are collected and sent to recycling facilities. Campus Dining sends food waste to a composting operation. The University also encourages recycling through its procurement policies: to the extent possible, all products must be recyclable or made from recycled materials. The University requires contractors to divert as much waste as possible during construction projects. Recent development projects on campus have achieved construction diversion rates as high at 97%. Solid waste which is not diverted by the University is transported to the Cold Canyon Landfill. The Landfill is located approximately 7 miles from San Luis Obispo. The landfill serves private entities and municipalities throughout San Luis Obispo County. The landfill has recently expanded and now operates near 50% of permitted capacity (250,000 tons per year [tpy] of a 500,000 tpy capacity) (Cal Poly 2014).

Solid waste and recyclable materials would be generated during site preparation, construction, operation, and decommissioning of the facility. Waste generated during site preparation will include greenwaste. The University intends to reuse as much material as possible, including use on campus. The proposed project would be consistent with all state and local regulations regarding solid waste diversion, and at least 50% of the campus' solid waste is diverted to a licensed recycling facility, as noted above. Impacts would be less than significant. Maintaining the existing diversion rate would ensure compliance with Assembly Bill 75, which requires all large state facilities to divert at least 50% of solid waste from landfills. Therefore, a less-than-significant impact to solid waste policies and programs would occur.

#### **Mitigation Measures**

None required.

#### Conclusion

Impacts associated with utilities are considered less than significant; sufficient capacity exists to accommodate increased demand for services.

	Issues	Potentially Significant New or Increased Impact	Less Than Significant New or Increased Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII.	MANDATORY FINDINGS OF SIGNIFICANCE				
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 species 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, 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		

- a. As described throughout this document, the project may degrade the quality of environment, including air quality, biological resources, and cultural resources. Mitigation provided in the document would reduce all impacts to a less than significant level. Based on implementation of mitigation, the project would not substantially reduce habitat or fish or wildlife populations or adversely impact historic resources.
- b. Impacts of the project can be mitigated to a less than significant level. Impacts are largely confined to the project itself, and would not lead to cumulatively considerable impacts.
- c. As described throughout this document, the project may degrade the quality of environment, including air quality. Mitigation provided in the document would reduce all impacts to a less than significant level.

# **DETERMINATION**

Pursuant to Sections 15152 and 15168 of the State CEQA Guidelines, this initial study has been prepared to evaluate the potential impacts of the proposed project.

On the basis of this initial evaluation:

	I find that the proposed project <b>COULD NOT</b> have a significant effect on the environment, and a <b>NEGATIVE DECLARATION</b> will be prepared.
<u>X</u>	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 of the mitigation measures described in the initial study. A NEGATIVE DECLARATION will be prepared.
	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.
	I find that the proposed project <b>MAY</b> have a significant effect(s) 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, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An <b>ENVIRONMENTAL IMPACT REPORT</b> is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, there <b>WILL NOT</b> be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.
Name	Date

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#### LIST OF PREPARERS

Shawna Scott, Senior Planner, SWCA