

Appendix A

NOP/Scoping Document/ Scoping Comments



Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
 For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Utility-Scale Solar Amendments

Lead Agency: County of Santa Barbara

Contact Person: Zoe Carlson

Mailing Address: 123 East Anapamu Street

Phone: (805) 568-2023

City: Santa Barbara

Zip: 93101-2058

County: Santa Barbara

Project Location: County: Santa Barbara City/Nearest Community: Unincorporated areas

Cross Streets: Countywide

Zip Code: _____

Longitude/Latitude (degrees, minutes and seconds): _____° _____' _____" N / _____° _____' _____" W Total Acres: _____

Assessor's Parcel No.: _____ Section: _____ Twp.: _____ Range: _____ Base: _____

Within 2 Miles: State Hwy #: 101, 1, 154, 192, 246

Waterways: _____

Airports: _____ Railways: _____ Schools: _____

Document Type:

CEQA: ☒ NOP ☐ Draft EIR NEPA: ☐ NOI Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) _____ ☐ Draft EIS ☐ Other: _____
☐ Mit Neg Dec Other: _____ ☐ FONSI _____

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☒ Other: Policy & Zoning Amendments

Development Type:

☐ Residential: Units _____ Acres _____ ☐ Transportation: Type _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____ ☐ Mining: Mineral _____
☐ Commercial: Sq.ft. _____ Acres _____ Employees _____ ☐ Power: Type _____ MW _____
☐ Industrial: Sq.ft. _____ Acres _____ Employees _____ ☐ Waste Treatment: Type _____ MGD _____
☐ Educational: _____ ☐ Hazardous Waste: Type _____
☐ Recreational: _____ ☒ Other: Future solar projects (utility-scale and smaller facilities)
☐ Water Facilities: Type _____ MGD _____

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Fiscal ☐ Recreation/Parks ☐ Vegetation
☒ Agricultural Land ☐ Flood Plain/Flooding ☐ Schools/Universities ☐ Water Quality
☒ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☐ Water Supply/Groundwater
☒ Archeological/Historical ☐ Geologic/Seismic ☐ Sewer Capacity ☒ Wetland/Riparian
☒ Biological Resources ☐ Minerals ☐ Soil Erosion/Compaction/Grading ☒ Growth Inducement
☒ Coastal Zone ☒ Noise ☐ Solid Waste ☒ Land Use
☐ Drainage/Absorption ☐ Population/Housing Balance ☐ Toxic/Hazardous ☒ Cumulative Effects
☐ Economic/Jobs ☐ Public Services/Facilities ☒ Traffic/Circulation ☒ Other: GHG, Energy

Present Land Use/Zoning/General Plan Designation:

Several

Project Description: (please use a separate page if necessary)

The project proposes to remove the 600-acre utility-scale solar overlay restriction in Cuyama Valley and allow such projects with Conditional Use Permits (CUPs) on various zoned lands throughout the unincorporated county. It also introduces a new "community-scale" solar category for smaller facilities. The project aims to streamline solar permitting processes and update multiple county plans and regulations to meet state requirements including the County of Santa Barbara Comprehensive Plan; Coastal Land Use Plan; County Land Use and Development Code (LUDC); Montecito LUDC; Article II Coastal Zoning Ordinance; Gaviota Coast Plan and other relevant community plans; and Uniform Rules for Agricultural Preserves and Farmland Security Zones (Uniform Rules).

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".
If you have already sent your document to the agency please denote that with an "S".

☐ Air Resources Board	☐ Office of Historic Preservation
☐ Boating & Waterways, Department of	☐ Office of Public School Construction
☐ California Emergency Management Agency	☐ Parks & Recreation, Department of
☐ California Highway Patrol	☐ Pesticide Regulation, Department of
☒ Caltrans District # <u>5</u>	☐ Public Utilities Commission
☐ Caltrans Division of Aeronautics	☒ Regional WQCB # <u>3</u>
☐ Caltrans Planning	☐ Resources Agency
☐ Central Valley Flood Protection Board	☐ Resources Recycling and Recovery, Department of
☐ Coachella Valley Mtns. Conservancy	☐ S.F. Bay Conservation & Development Comm.
☒ Coastal Commission	☐ San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
☐ Colorado River Board	☐ San Joaquin River Conservancy
☒ Conservation, Department of	☐ Santa Monica Mtns. Conservancy
☐ Corrections, Department of	☐ State Lands Commission
☐ Delta Protection Commission	☐ SWRCB: Clean Water Grants
☐ Education, Department of	☐ SWRCB: Water Quality
☐ Energy Commission	☐ SWRCB: Water Rights
☒ Fish & Game Region # <u>5</u>	☐ Tahoe Regional Planning Agency
☒ Food & Agriculture, Department of	☐ Toxic Substances Control, Department of
☐ Forestry and Fire Protection, Department of	☐ Water Resources, Department of
☐ General Services, Department of	
☐ Health Services, Department of	☐ Other: _____
☐ Housing & Community Development	☐ Other: _____
☒ Native American Heritage Commission	

Local Public Review Period (to be filled in by lead agency)

Starting Date November 7, 2024 Ending Date December 9, 2024

Lead Agency (Complete if applicable):

Consulting Firm: <u>Environmental Science Associates</u>	Applicant: <u>Santa Barbara County</u>
Address: <u>633 West 5th Street</u>	Address: <u>123 East Anapamu Street</u>
City/State/Zip: <u>Los Angeles</u>	City/State/Zip: <u>Santa Barbara</u>
Contact: <u>Luci Hise-Fisher, AICP</u>	Phone: <u>805-568-2023</u>
Phone: <u>213-599-4300</u>	

Signature of Lead Agency Representative: _____ Date: _____

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.



Planning and Development

Lisa Plowman, Director

Jeff Wilson, Assistant Director

Elise Dale, Assistant Director

NOTICE OF PREPARATION

DATE: November 7, 2024

TO: State Clearinghouse
Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

FROM: County of Santa Barbara
Planning and Development Department
Long Range Planning Division
123 East Anapamu Street
Santa Barbara, CA 93101-2058
(805) 568-2000

SUBJECT: Notice of Preparation and Scoping of a Program Environmental Impact Report (PEIR)

PROJECT NAME: Utility-Scale Solar Amendments

PROJECT CASE NOS.: 24ORD-00028 – Utility-Scale Solar Amendments (Inland)
24ORD-00029 – Utility-Scale Solar Amendments (Coastal)
24ORD-00030 – Utility-Scale Solar Amendments (Inland Montecito)

PROJECT LOCATION: The Project would affect lands within the Inland and Coastal Zone areas of unincorporated Santa Barbara County as related to future development of Tier 1 and Tier 2 solar energy systems. Tier 3 and Tier 4 development would affect lands that are zoned PI, AG-I, AG-II, PU, M-1, M-2, M-RP, M-CR, and M-CD. The Project would not include lands under the jurisdiction of the federal government (Los Padres National Forest and Vandenberg Space Force Base), and the University of California.

LEAD AGENCY: The County of Santa Barbara is the lead agency preparing the PEIR with the purpose of informing decision-makers and the public regarding the potential environmental effects related to the project in compliance with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.).

PROJECT DESCRIPTION: Currently, utility-scale solar is only allowed with a Conditional Use Permit (CUP) within the 600-acre Utility-Scale Solar Photovoltaic Overlay on lands zoned Agriculture II (AG-II) in the unincorporated Cuyama Valley Rural Region. To facilitate utility-scale solar development throughout the unincorporated county, the Project would remove the overlay boundary restrictions and allow utility-scale solar as a conditionally permitted use on lands zoned Professional and Institutional (PI), Agricultural I (AG-I), Agricultural II (AG-II), Public Utility (PU), Light Industry (M-1), General Industry (M-2), Industrial Research Park (M-RP),

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Coastal Related Industry (M-CR), and Coastal Dependent Industry (M-CD) within the Inland Area and Coastal Zone portions of the unincorporated county. As part of the amendments, a new category of solar energy facility, termed “community-scale,” would be defined and conditionally allowed within the same zoning designations. Community-scale solar energy facilities are typically smaller than utility-scale facilities, fit into an established development pattern, and connect to the electricity distribution network. In tandem with the utility-scale solar ordinance revisions, existing development standards and other related components of the zoning ordinances will be revised to meet new State requirements for streamlining the permitting of solar energy systems. In part, the solar energy system amendments will allow for streamlined permitting of solar carports and other solar shade structures in accordance with California Government Code Section 65850.5 and pertinent definitions in California Civil Code Section 801.5.

The Project would update the following County of Santa Barbara land use plans and regulations:

- County of Santa Barbara Comprehensive Plan, including the Land Use Element
- Coastal Land Use Plan
- County Land Use and Development Code (LUDC)
- Montecito LUDC
- Article II Coastal Zoning Ordinance
- Gaviota Coast Plan and other community plans to be identified if needed
- Uniform Rules for Agricultural Preserves and Farmland Security Zones (Uniform Rules)

The project description, location, and potential environmental effects are included in the *Environmental Scoping Document for Utility-Scale Solar Amendments* that may be downloaded from the project webpage at:

<https://www.countyofsb.org/792/Utility-Scale-Solar-Comprehensive-Plan>

PUBLIC AND AGENCY COMMENTS: We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency’s statutory responsibilities in connection with the proposed project. Your agency may need to use the PEIR prepared by the County of Santa Barbara when considering your permit or other approval for the project. Members of the public are also encouraged to provide comments on the scope of the proposed PEIR.

Agency and public **comments must be received no later than 5:00 p.m. on December 9, 2024.** Please send your comments and the name of a contact person in your agency to the address provided below.

Contact: Zoe Carlson
Long Range Planning Division
Planning and Development Department
123 East Anapamu Street
Santa Barbara, CA 93101
Telephone: (805) 568-2023
Email: carlsonz@countyofsb.org

PEIR Scoping Meeting: A hybrid PEIR Scoping Meeting will be held on **Thursday, November 21, 2024 at 5:30 p.m.** In accordance with CEQA, the purpose of the Scoping Meeting is for the County to solicit input and comments from agencies and the public on environmental issue or alternatives they believe should be addressed in the PEIR.

The meeting will be held in person at the
Planning Commission Hearing Room at 105 E. Anapamu Street, Santa Barbara, CA 93101.
For people attending virtually, you may join and participate in the meeting by using the following Zoom link: <https://santabarbaracounty.zoomgov.com/j/1604939010>

Copies of the documentation and information regarding the project are available on the project's webpage at: <https://www.countyofsb.org/792/Utility-Scale-Solar-Comprehensive-Plan>

cc: County of Santa Barbara Clerk of the Board



one
COUNTY
one
FUTURE

COUNTY OF SANTA BARBARA

Planning & Development

Environmental Scoping Document

for Utility-Scale Solar Amendments

Project Website:

<https://www.countyofsb.org/792/Utility-Scale-Solar-Comprehensive-Plan>

Contact:

Zoe Carlson, Senior Planner

(805) 568-2072

carlsonz@countyofsb.org

November 7, 2024

Planning and Development Department

Long Range Planning Division

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1.0 Purpose

This environmental scoping document describes the proposed Utility-Scale Solar Amendments project (Project). This Project includes amending the County of Santa Barbara (County) Land Use Development Code (LUDC), the Montecito LUDC, and the Coastal Zoning Ordinance (Article II), as well as revisions to the County's Uniform Rules for Agricultural Preserves and Farmland Security Zones (Uniform Rules) to allow and regulate solar energy systems and facilities throughout the County. This Project also includes amendments to the Comprehensive Plan, the Coastal Land Use Plan, and community plans as necessary to enable and encourage the development of solar energy systems and facilities. Amendments will also be made to the definitions across all plans and ordinances to ensure consistency in the terminology and regulatory treatment of solar energy systems and facilities throughout the County.

This environmental scoping document provides a preliminary review of the Project's potential environmental impacts in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.). This scoping document, along with comments received in response to the Notice of Preparation (NOP) of a Programmatic Environmental Impact Report (PEIR) for the Project, will assist the County of Santa Barbara (the lead agency for the preparation of the PEIR for the Project) in identifying environmental impacts that must be evaluated in the PEIR.

2.0 Background

CEQA requires the preparation of an EIR to inform the public and decision-makers of the potential environmental effects of the proposed regulations. A Program EIR (PEIR) is used to evaluate a plan or program and its series of related activities, rather than a singular specific project. According to CEQA Guidelines Section 15151, an EIR, or specifically a PEIR for this Project, "...should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences."

The PEIR will evaluate the environmental impacts of anticipated activities resulting from the ordinance, Comprehensive Plan, and Uniform Rules amendments. The environmental analysis will be based on the project description and will set forth mitigation measures that could be included as development standards (e.g., the Uniform Rules or zoning ordinances) in order to avoid or reduce significant impacts identified in the environmental analysis.

3.0 Project Overview

In 2019, the County Board of Supervisors (Board) adopted the Strategic Energy Plan (SEP) to stimulate local renewable energy generation. The SEP identified opportunities for renewable energy development, including solar photovoltaic resources, as well as barriers to development. In 2019, the unincorporated county supported approximately 43 megawatts (MW) of utility-scale solar generation, but the SEP identified the potential for up to 513 MW of utility-scale solar generation on agriculturally zoned lands alone (not including generation potential within other zoning designations). The SEP found that the county has the capacity for up to 2,925 MW of solar photovoltaic energy generated annually (from utility-scale and distributed/onsite solar systems combined). The Board subsequently directed County staff to initiate zoning ordinance amendments to facilitate utility-scale solar development. On July 13, 2021, the Board directed County staff to prepare a scope of work that includes preparation of a streamlined permitting process to promote utility-scale solar development in as many suitable locations throughout the unincorporated county areas as reasonable.

Currently, utility-scale solar¹ is only allowed with a Conditional Use Permit (CUP) within the 600-acre Utility-Scale Solar Photovoltaic Overlay on lands zoned Agriculture II (AG-II) in the unincorporated Cuyama Valley Rural Region. To facilitate utility-scale solar development throughout the unincorporated county, the Project would, in part, remove the overlay boundary restrictions and allow utility-scale solar as a conditionally permitted use on lands zoned Professional and Institutional (PI), Agricultural I (AG-I), Agricultural II (AG-II), Public Utility (PU), Light Industry (M-1), General Industry (M-2), Industrial Research Park (M-RP), Coastal Related Industry (M-CR), and Coastal Dependent Industry (M-CD) within the Inland Area and Coastal Zone portions of the unincorporated county. As part of the amendments, a new category of solar energy facility, termed “community-scale,” would be defined and conditionally allowed within the same zoning designations. Community-scale solar energy facilities are typically smaller than utility-scale facilities, fit into an established development pattern, and connect to the electricity distribution network (Solar@Scale 2023).

The Project would update the following County of Santa Barbara land use plans and regulations:

- County of Santa Barbara Comprehensive Plan, including the Land Use Element
- Coastal Land Use Plan
- County Land Use and Development Code (LUDC)
- Montecito LUDC
- Article II Coastal Zoning Ordinance
- Gaviota Coast Plan and other community plans to be identified if needed
- Uniform Rules for Agricultural Preserves and Farmland Security Zones (Uniform Rules)

In tandem with the utility-scale solar ordinance revisions, existing development standards and other related components of the zoning ordinances will be revised to meet new State requirements for streamlining the permitting of solar energy systems.² In part, the solar energy system amendments will allow for streamlined permitting of solar carports and other solar shade structures in accordance with California Government Code Section 65850.5 and pertinent definitions in California Civil Code Section 801.5.

Subsequent to the July 2021 Board hearing, County staff conducted the following outreach efforts:

- Presentations regarding draft amendment concepts to the Agricultural Advisory Committee (AAC) on November 4, 2021 and August 8, 2024.
- Presentations regarding draft amendment concepts to the Agricultural Preserve Advisory Committee (APAC) on October 1, 2021 and August 8, 2024.
- Discussion with APAC on September 12, 2024 to receive input on administrative draft Uniform Rules amendments.

¹ Existing LUDC definition of Utility-Scale Solar Photovoltaic Facilities: Facilities that are connected to the electrical grid on the utility side of the electric meter and are built for the primary purpose of generating and selling wholesale power. The electricity generated by the facility is not primarily used for on-site activities (such as farming or domestic water heating).

² Existing LUDC definition of Solar Energy System: Solar energy system means either (a) any solar collector or other solar energy device whose primary purpose is to provide for the collection, storage, and distribution of solar energy for space heating, space cooling, electric generation, or water heating, or (b) any structural design feature of a building, whose primary purpose is to provide for the collection, storage, and distribution of solar energy for electricity generation, space heating or cooling, or for water heating...

- Meeting with local and regional solar developers and stakeholders on May 23, 2024.

Given the nature of the Project, the CEQA project description is written broadly to account for a range of options for future utility-scale solar development and smaller types of solar generation facilities, including but not limited to community-scale,³ distributed energy resources or systems,⁴ and onsite systems (e.g. rooftop, ground mounted). As part of this Project, definitions for terms such as “community-scale solar energy facility” and “utility-scale solar energy facility” are being proposed. These definitions, as proposed, provide a basis for assessing the environmental effects of the proposed amendments, while allowing for minor adjustments if needed based on public input and technical analysis. Depending upon the applicable zoning designation, location within or outside the Coastal Zone, and size of the proposed solar energy system or facility, permitting options range from an exemption (no permit required), Zoning Clearance, or Land Use Permit/Coastal Development Permit to a Minor Conditional Use Permit/Conditional Use Permit.

The Draft PEIR will contain a detailed project description and alternatives that the public may review and comment upon. Comments received during this public scoping period, and during the Draft PEIR public review period in 2025, will be incorporated into the Final PEIR that the Board may rely on during their decision-making proceedings. The project description set forth in this scoping document does not constitute a staff recommendation to the Board on the amendment direction to be evaluated in the PEIR. Staff will formulate a recommendation upon completion of the PEIR. The development standards set forth in the description below may be modified and/or augmented by mitigation measures that may be identified in the PEIR.

3.1 Project Applicant/Lead Agency

The County of Santa Barbara is both the project applicant and the lead agency for the proposed project.

3.2 Project Location

The Project would affect lands within the Inland and Coastal Zone areas of unincorporated Santa Barbara County as related to future development of Tier 1 and Tier 2 solar energy systems. Tier 3 and Tier 4 development would affect lands that are zoned PI, AG-I, AG-II, PU, M-1, M-2, M-RP, M-CR, and M-CD. See **Table 2, Proposed Solar Energy System and Facility Tiers** below for details on the solar energy system and facilities tiers. The Project would not include lands under the jurisdiction of the federal government (Los Padres National Forest and Vandenberg Space Force Base), and the University of California. **Figure 1, Project Location**, shows the zones in which amendments would be made to allow for utility-scale and community-scale solar energy facility development. **Figure 2, Community Plan Areas**, shows the Community Plan areas within the County that could be amended.

3.3 Project Description

The Project includes three components, as described in Sections 3.3.1 through 3.3.3 below.

³ U.S. Department of Energy defines community scale solar as any solar project or purchasing program, within a geographic area, in which the benefits flow to multiple customers (individuals, businesses, nonprofits, and other groups) rather than one company or facility.

⁴ The California Energy Commission (2024) defines “distributed energy resources” as a “diverse category of devices and technologies that interface with the electricity system at the distribution level, either directly connected to a distribution utility’s wires or on an end-use customer’s premises, behind the utility meter.”

3.3.1 Zoning Ordinance Amendments

The first component of the Project would include amending the County's three zoning ordinances to allow utility-scale and smaller scales (e.g. community-scale) of solar energy facilities as permitted uses on lands zoned AG-I, AG-II, PI, PU, M-1, M-2, M-RP, M-CR, and M-CD. Currently, utility-scale solar is only described and allowed within the County LUDC. See **Table 1**, *Solar Photovoltaic Systems Currently Allowed within Santa Barbara County*, for an overview of these use and zoning classifications. The LUDC currently allows utility-scale solar on lands zoned AG-II within the 600-acre Utility-Scale Solar Photovoltaic Overlay. LUDC Chapter 35.59 (Utility-Scale Photovoltaic Facilities) defines the overlay boundaries and prescribes development standards specifically for utility-scale solar. The development standards prevent or minimize potential impacts to public views, agricultural lands, sensitive biological resources, geologic hazards, and other project-related impacts. Applicants must obtain a CUP to construct utility-scale solar.

Table 1 outlines how utility-scale solar fits into the planning and zoning requirements as discussed above. Specifically, the Project focuses on amending LUDC Chapter 35.59 to allow utility-scale and smaller scales of solar development outside of the Utility-Scale Solar Photovoltaic Overlay area. The amendments identify solar energy systems and facilities that would be allowed; the zones in which they would be allowed; and the required types of permits, with accompanying development standards, for the siting and operation of such systems and facilities. These provisions are intended to encourage solar energy generation and storage development while protecting public health and safety.

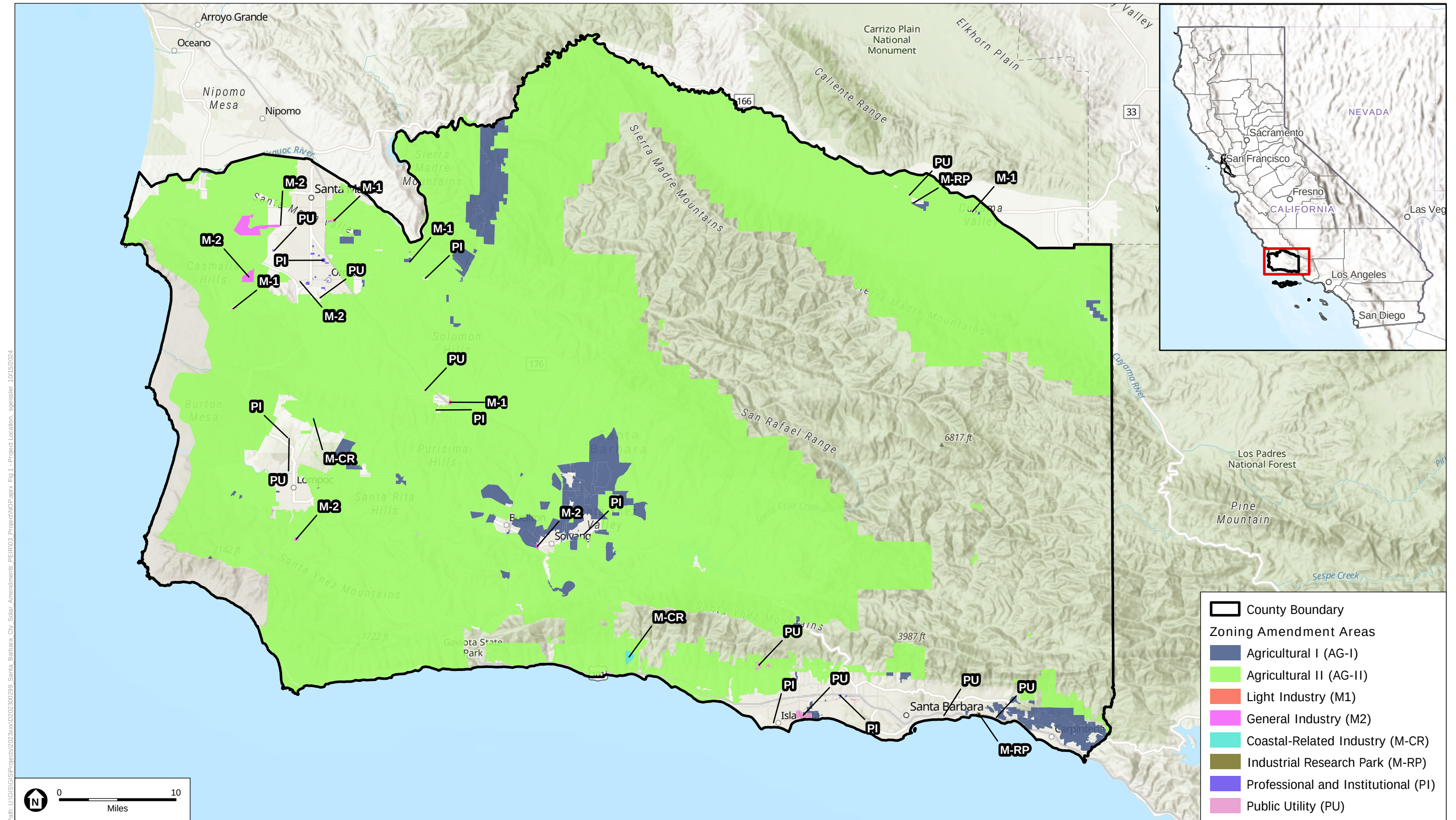
The Project would also amend the Montecito LUDC and Article II, Coastal Zoning Ordinance, to allow utility-scale (and smaller scales of) solar energy facilities and systems as permitted uses within specific zoning designations. Within the Montecito LUDC, utility-scale solar energy facilities would be allowed within the PU zoning designation.

3.3.2 Policy Amendments

The second component of the Project would include an update to the County's land use plans, including coastal land use plans and community plans, to allow for utility-scale and community-scale solar development. Amendments to the Comprehensive Plan primarily include amending the Land Use Element to remove the Utility-Scale Solar Photovoltaic Facility Overlay and Utility-Scale Solar Photovoltaic Facility Policy, thereby allowing utility-scale solar (and smaller scales of solar energy generation facilities) as an allowed use outside of the Cuyama Valley Rural Region. The definition of "utility-scale solar photovoltaic facilities" would be revised and new definitions would be added to support smaller scales of solar energy generation systems and facilities (e.g., community-scale solar energy facilities, distributed energy systems, onsite solar energy systems).

Currently, the Coastal Land Use Plan does not allow utility-scale solar facilities within the Coastal Zone. Proposed amendments to the Coastal Land Use Plan would allow utility-scale and smaller scales of solar energy systems and facilities as allowed uses within the Coastal Zone portion of the unincorporated county, for consistency with the Comprehensive Plan amendments.

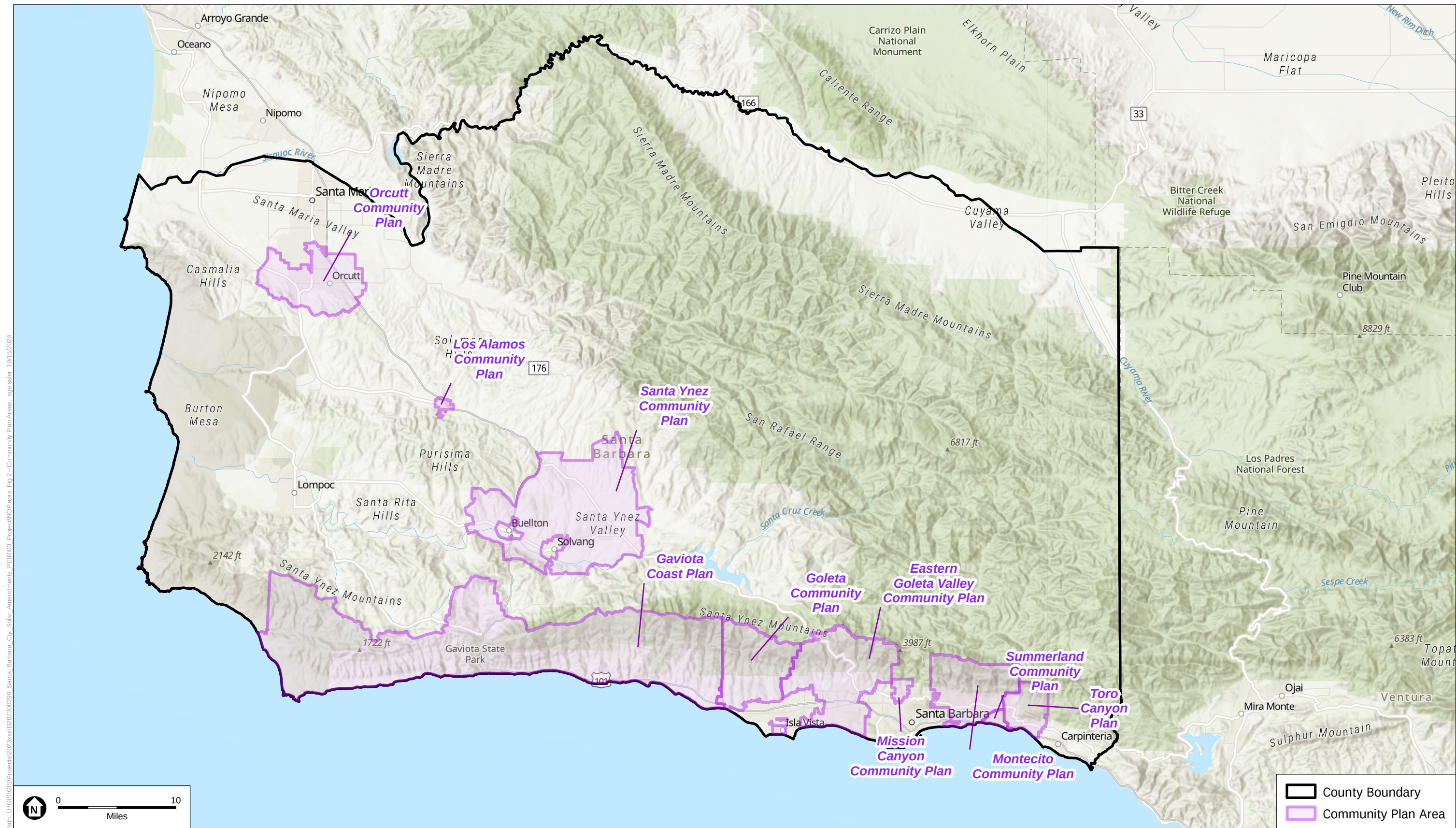
If determined to be necessary, amendments to community plans may also be proposed to effectuate the revisions to the Comprehensive Plan and Coastal Land Use Plan.



SOURCE: ESA, 2024; County of Santa Barbara, 2024

Santa Barbara County Solar Amendments and PEIR

Figure 1
Project Location



SOURCE: ESA, 2024; County of Santa Barbara, 2024

Santa Barbara County Solar Amendments and PEIR

Figure 2
Community Plan Areas

TABLE 1. SOLAR PHOTOVOLTAIC SYSTEMS CURRENTLY ALLOWED WITHIN SANTA BARBARA COUNTY

Location	Allowed Use	Description	Planning Permit Required	Allowable Zone(s)
Utility-Scale Solar				
Inland – Excluding Montecito	Utility-Scale Solar Photovoltaic Facilities (LUDC Chapter 35.59)	Utility-scale solar facilities located within the Utility-Scale Solar Photovoltaic Overlay (600 acres). (LUDC Chapter 35.59)	CUP	AG-II
Inland - Montecito	Not Allowed	N/A	N/A	N/A
Coastal Zone	Not Allowed	N/A	N/A	N/A
Solar Energy Systems				
Inland	Rooftop and Freestanding Solar Energy Systems (LUDC Sections 35.20.040.B.24 and 35.30.160, MLUDC Sections 35.420.040.B.22 and 35.430.160)	Solar energy device whose primary purpose is to provide for the collection, storage, and distribution of solar energy. (LUDC Section 35.110.020.S, MLUDC Section 35.500.020.S)	Exempt ¹	All Zones
Coastal Zone - (Rooftop)	Rooftop Solar Energy Systems (CZO Section 35- 51B.B.2.n)	Solar systems located on the roofs of existing structures. (CZO Section 35- 51B.B.2.n)	Exempt ²	All Zones
Coastal Zone – (Freestanding)	Freestanding Solar Energy Systems (CZO Section 35- 169.4.2.c.1)	Ground-mounted solar systems accessory and incidental to the principal use and sized to primarily support only the principal use. (CZO Section 35-169.4.2.c.1)	Coastal Development Permit (CDP) ²	All Zones

Source: County of Santa Barbara and ESA, 2024

Notes:

1. A Solar Use Permit is required in tandem with the applicable building permit if the Building Official finds that the system would have “a specific, adverse impact upon the public health or safety.” (LUDC Section 35.30.160.A, MLUDC Section 35.430.160.A)
2. The Director shall review the CDP application and approve, conditionally approve, or deny the Coastal Development Permit. A public hearing shall not be required. (CZO Section 35-169.4.2.c.1.b)

Within the Coastal Zoning Ordinance, utility-scale solar energy facilities would be allowed within the AG-I, AG-II, PU, PI, M-RP, M-CR, and M-CD zoning designations. Amendments to the Coastal Land Use Plan and Coastal Zoning Ordinance may also include changing the land use and zoning designations for the Mariposa Reina oil processing facility site (17100 Calle Mariposa Reina, Goleta, CA). Currently, the Mariposa Reina site is zoned M-CD with a land use designation of Coastal Dependent Industry. In order to facilitate future reuse of the site, the Project would allow for utility-scale solar energy facilities to be developed at the site either as a conditionally permitted use within the M-CD zoning designation, or by rezoning the site to a designation that would allow for utility-scale solar development.

Updates to all three ordinances would be made to create a tiered, streamlined path for permitting utility-scale (and smaller scales) solar energy facilities. The tiers would categorize the solar energy facilities or systems by typical size and types of potential land use impacts. This streamlined path would identify solar facilities that are ministerial and exempt from CEQA; those that require a Minor CUP, and those that require a Major CUP. The Project would ensure consistency in permitting procedures across all three ordinances (County LUDC, Montecito LUDC, and Coastal Zoning Ordinance), where possible.

Table 2, *Proposed Solar Energy System and Facility Tiers*, shows the proposed category of tiers, ranging from 1-4, with its allowable system size and classification.

TABLE 2. PROPOSED SOLAR ENERGY SYSTEM AND FACILITY TIERS

Category	Proposed Classification	Proposed Allowable System Size	Site Development Considerations
Tier 1	Building-integrated or roof-mounted solar energy system	All	May be located on any existing or proposed buildings or structures.
	Small ground-mounted solar energy system	Up to and including 0.5 acres	May be allowed on undeveloped land or existing developed land.
Tier 2	Large ground-mounted solar energy system	Between 0.5 and up to and including 3.0 acres	Only allowed on existing developed land (e.g., existing parking lot).
Tier 3	Community-scale solar energy facility	Between 0.5 and up to and including 30 acres	May be allowed on undeveloped land or existing developed land.
Tier 4	Utility-scale solar energy facility	Greater than 30 acres	May be allowed on undeveloped land or existing developed land.

Table 3, *Proposed Allowed Zones and Permit Requirements*, indicates where each tier would be allowed and what type of planning permit would be required, if any.

TABLE 3. PROPOSED ALLOWED ZONES AND PERMIT REQUIREMENTS

Tier	Zones Where Allowed	Planning Permit Requirement
Tier 1	All zones	Exempt ⁵
Tier 2	All zones	Zoning Clearance (LUDC and MLUDC) or CDP
Tier 3	AG-I, AG-II; PI; M-1, M-2, M-RP, M-CR, M-CD	Minor CUP
	PU	Development Plan
Tier 4	AG-I, AG-II; PI; M-1, M-2, M-RP, M-CR, M-CD	Major CUP
	PU	Development Plan

The Project would include revised or new development standards for each tier of solar facilities to be permitted in unincorporated County areas. The existing development standards within the Utility-Scale Solar Photovoltaic Facilities chapter of the County LUDC (Chapter 35.59) would be amended as needed to provide standards for all tiers of solar energy facilities and systems and to mitigate potential resource and land use impacts. These amendments would be applied across all three ordinances.

In addition to the utility-scale solar ordinance amendments, the three ordinances would be revised to clarify permitting for standalone battery energy storage systems (BESS) and BESS with solar energy systems. BESS facilities are currently permitted as “public utility facilities” in the LUDC. The ordinance definitions and use tables would be revised to clarify that BESS facilities are permitted where similar utility facilities are currently allowed.

3.3.3 Uniform Rules Amendments

The final component of the Project is to update the Uniform Rules for Agricultural Preserves and Farmland Security Zones (Uniform Rules). The proposed amendments include adding a definition

⁵ In the Coastal Zoning Ordinance, ground mounted systems may require additional permit approval.

for “agrivoltaics”,⁶ defining “compatible use” specifically as it pertains to an energy facility with agriculture, and adding a definition for “solar energy facility” and “solar-use easement.”⁷ This component of the Project includes:

- Amending Uniform Rule 2, *Compatible Uses within Agricultural Preserves*, to expand the compatibility guidelines under the Williamson Act. It also includes updating Section 2-8 to include solar energy facilities as a compatible use, including agrivoltaics and solar energy facilities separated from agricultural uses on contracted land.
- Amending Uniform Rule 6, *Administration*, to add Solar Use Easement allowances. This means a cancellation of a Williamson Act Contract to allow for utility-scale solar development.

3.4 Adoption and Implementation

The County Planning Commission will consider and advise the Board regarding the adoption of the proposed Utility-Scale Solar Amendments. The Montecito Planning Commission will also consider and advise on the Project, as they would (1) advise the County Planning Commission on the policy and ordinance changes within the Coastal Zone portion of the Montecito Community Plan area, and (2) advise the Board on the policy and ordinance changes within the Inland portion of the Montecito Community Plan area.

The Board will need to take the following actions in order to implement the Project:

- Adopt environmental findings, certify the PEIR, and, if needed, adopt a Statement of Overriding Considerations for any unavoidable, significant environmental impacts that will result from the Project; and
- Adopt amendments to the County Comprehensive Plan, Coastal Land Use Plan, Gaviota Coast Plan and potentially other community plans as needed, County LUDC, Montecito LUDC, Article II - Coastal Zoning Ordinance, and Uniform Rules to establish the land use and zoning regulations for the allowance of solar energy systems and facilities.

In addition to the actions set forth above, the California Coastal Commission must certify any amendments to the Local Coastal Program, which includes both the Coastal Land Use Plan and Article II.

4.0 Scope of the Environmental Review

4.1 Overview

CEQA requires the preparation of an EIR to inform the public and decision-makers of the project’s potential environmental effects resulting from the policy, zoning ordinance, and Uniform Rules amendments to allow for utility-scale solar development as described in the project description. According to CEQA Guidelines Section 15151, “[a]n EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences.”

⁶ Agrivoltaics is the term used to describe the co-location of solar and agriculture uses.

⁷ As described by the California Department of Conservation, parties holding a Williamson Act or Farmland Security Zone contract may mutually agree to rescind a contract (or a portion of) in order to simultaneously enter into a solar-use easement, allowing solar as a compatible use.

4.2 Environmental Topics to be Analyzed in the PEIR

CEQA Guidelines Section 15060(d) states that an initial study is not required in cases where preparation of an EIR is determined to be clearly required by the lead agency. Accordingly, an initial study for the project is not provided herein. However, preliminary review of the project identified the following issue areas for evaluation in the PEIR. Additional environmental topics beyond what is set forth below might be added to the PEIR, based on comments received in response to the NOP for the Draft PEIR. The PEIR will identify potential significant direct, indirect, and cumulative effects of the Project and alternatives related to the resource areas identified below. In addition to this analysis, mitigation measures to avoid, minimize, and/or mitigate potential impacts, will be recommended if necessary. The following resource areas will be analyzed in the PEIR:

4.2.1 *Aesthetics and Visual Resources*

Santa Barbara County supports a wide range of aesthetic resources, including scenic highways (e.g., State Routes 1 and 154, portion of U.S. Highway 101), scenic natural resources such as the Santa Ynez Mountains, oak woodlands, historic buildings, and areas with panoramic ocean views. Portions of the project area may be located near designated scenic routes in the Santa Barbara County General Plan Circulation Element or eligible scenic corridors designated by Caltrans. Future development under the proposed project could alter views from nearby roadways and publicly accessible open space areas and trails. The extent of the changes to the physical environment and whether such changes would be visible from publicly accessible viewpoints will be evaluated in the PEIR. The evaluation will also include an analysis of the potential impacts on the existing visual character of the project area as well as potential nighttime light and glare impacts.

4.2.2 *Agricultural Resources*

This section of the PEIR will discuss potential impacts to agricultural resources associated with the proposed amendments that would change the existing agricultural zoning designations in affected portions of the project area, potential impacts to agricultural land under Williamson Act contracts, as well as potential physical impacts associated with conversion of agricultural land to non-agricultural use. Because the portions of the County affected by the proposed amendments do not contain any designated forest land, the proposed project is not anticipated to result in an adverse impact on forest land.

4.2.3 *Air Quality and Greenhouse Gas Emissions*

The PEIR will describe existing conditions within the South-Central Coast Air Basin and in the project vicinity, including attainment status for criteria pollutants, climatic conditions, local emissions sources, and sensitive receptors, such as schools, elder care facilities, park visitors and adjacent neighborhoods. Future development allowed by the proposed amendments could generate criteria air pollutant and ozone precursor emissions from construction and operational activities. The primary sources of emissions during construction would occur from heavy-duty construction equipment, haul trucks and vehicles, and fugitive dust. The primary sources of emissions during operational activities would be from motor vehicles traveling to and from the solar facilities and from energy demand from any ancillary buildings (if not supplied by renewable sources), evaporative sources (e.g., use of paints and consumer products), landscaping activities, and potentially windblown fugitive dust if vegetated areas are cleared to accommodate new utility-scale solar facilities. The PEIR air quality analysis will identify potential air quality impacts associated with construction and operational activities from projects that could occur as a result of adoption of the proposed amendments. The PEIR will provide a description of the current regulatory setting regarding air quality and greenhouse gas emissions, and assess the potential air quality impacts from

possible development and/or operations of solar-utility projects that could generate emissions, as well as potential impacts to air quality and greenhouse gas emissions from project-related vehicle miles traveled (VMT). The PEIR will analyze the Project's consistency with the applicable requirements of the Santa Barbara County Air Pollution Control District (SBCAPCD) Scope and Content of Air Quality Sections in Environmental Documents and Guidelines for the Implementation of the California Environmental Quality Act as well as the Santa Barbara County Environmental Thresholds and Guidelines Manual.

4.2.4 *Biological Resources*

Santa Barbara County supports a wide range of habitats, including oak and riparian woodlands, chaparral and coastal sage scrub, vernal pools, native grasslands, and coastal wetlands, which together support dozens of special status or sensitive species. These include rare wildlife species such as the California tiger salamander (*Ambystoma californiense*), southern steelhead trout (*Oncorhynchus mykiss*), and arroyo toad (*Anaxyrus californicus*), among others, and rare plants such as Gaviota tarplant (*Deinandra increscens ssp. Villosa*). The PEIR will discuss the special status plant and wildlife species and habitats found within the project area and analyze the potential for significant project-specific and cumulative effects on biological resources. The analysis will be based largely on desktop research using tools such as the California Natural Diversity Data Base, National Wetlands Inventory Maps, habitat maps (e.g., Environmentally Sensitive Habitats maps in the Coastal Zone) or other data from adopted Comprehensive and Community plans, as well as regional plans or State and federal data. The PEIR will include a discussion of existing conditions based on the literature and database review and desktop evaluation, an evaluation of the potential for sensitive species and their habitats to occur, and a discussion of potential impacts to biological resources including aquatic resources resulting from future development resulting from the proposed amendments.

4.2.5 *Cultural Resources and Tribal Cultural Resources*

A program-level CEQA analysis will be conducted to address potential cultural resources impacts, including archaeological and historic architectural resources, associated with construction and operational activities from implementation of projects that could occur as a result of adoption of the proposed amendments. The cultural resources analysis will include an inventory of resources included in the National Register of Historic Places, California Register of Historical Resources, National Historic Landmarks, California Historic Landmarks, County of Santa Barbara Historic Landmarks, and any other available relevant resource databases. The PEIR Cultural Resources section will provide the results of the inventory and impacts analysis.

For tribal cultural resources, a program-level CEQA analysis will be conducted to address potential impacts associated with potential future solar facilities that could occur as a result of adoption of the proposed amendments. A Sacred Lands File (SLF) search will be requested from the California Native American Heritage Commission (NAHC) in order to solicit information on sensitive or undocumented traditional/cultural sites in the vicinity. The PEIR will summarize communication resulting from the County's Assembly Bill (AB) 52 and Senate Bill (SB) 18 consultations and will document the methods and results of the consultations in the Tribal Cultural Resources section of the PEIR. This section will include the results of the Sacred Land File search through the Native American Heritage Commission, County outreach efforts to California Native American tribes per AB 52 and SB 18, and results of Native American consultation, following State CEQA Guidelines and in accordance with the confidentiality requirements of AB 52 and SB 18.

4.2.6 Energy

The potential impacts on energy resources due to wasteful, inefficient, and unnecessary consumption of energy, will be analyzed in the Energy section of the PEIR based on the findings of the Energy and GHG Emissions Analysis described under GHG Emissions. The analysis will include a quantification of anticipated energy and transportation fuel needs during construction and buildout conditions and energy conservation measures, including renewable electricity generation and offsets to non-renewable energy sources, that would reduce the wasteful, inefficient, and unnecessary consumption of energy. The PEIR will also evaluate the project's consistency with applicable plans for renewable energy and energy efficiency. The energy calculation outputs will be included as an appendix to the PEIR.

4.2.7 GHG Emissions

The PEIR will include program-level energy and GHG emissions analyses that will identify potential impacts associated with construction and operational activities from development and operation of solar projects that could occur as a result of adoption of the proposed amendments. The analyses will meet the applicable requirements of the SBCAPCD Scope and Content of Air Quality Sections in Environmental Documents and Guidelines for the Implementation of the California Environmental Quality Act as well as the Santa Barbara County Environmental Thresholds and Guidelines Manual.

In addition to an emission-based analysis, the State CEQA Guidelines require evaluation of a project's consistency with applicable plans, policies, and regulations that have been adopted for the purpose of reducing GHG emissions. The analysis will consider the applicable policies and measures proposed for the amendments and compare them with applicable GHG reduction measures recommended by the State (e.g., CARB 2022 Scoping Plan for Achieving Climate Neutrality) and the County, including the 2030 Climate Action Plan.

4.2.8 Land Use and Planning

The future expansion of utility-scale solar installations throughout the County requires amendments to the County's Comprehensive Plan and other affected planning and policy documents associated with construction and operation of solar facilities and associated infrastructure. The PEIR will include a review of the policies and plans that are applicable to the proposed project for consistency. The land use section will also include a description of the existing land uses, intensities, and land use patterns in the proposed amendment areas as well as the compatibility of the proposed land use amendments with the adjacent existing uses. The PEIR will evaluate potential features associated with utility-scale solar facilities and the potential to minimize conflicts and increase compatibility between the future solar facilities and surrounding or other proximate land uses.

4.2.9 Noise

Adoption of the proposed amendments may result in new construction and operational activities that would constitute additional noise sources that could affect existing and/or future noise-sensitive receptors in the identified areas. A noise impact analysis will be prepared and will reference existing noise background data from the County's Comprehensive Plan Noise Element to describe the existing noise conditions that will be used to define the noise foundation for the analysis. This analysis will be prepared in accordance with the applicable requirements of the Santa Barbara County Environmental Thresholds and Guidelines Manual. Based on County noise policies and standards, if potentially significant impacts are identified, feasible mitigation measures (e.g., barrier

locations and heights) will be identified. The noise impact analysis will be summarized in the PEIR with supporting documentation included as an appendix.

4.2.10 Transportation

The PEIR will evaluate the potential impacts of the proposed amendments on transportation. Using the Santa Barbara County Environmental Thresholds and Guidelines Manual (Chapter 18 – Thresholds of Significance for Transportation Impacts), the PEIR will analyze all four transportation threshold questions identified in CEQA Guidelines Appendix G. A consistency analysis of the proposed amendments with plans, programs, ordinances, or policies related to transportation; consistency with CEQA Guidelines Section 15064.3(b) (vehicle miles traveled); potential to introduce new or increase existing hazards to the transportation network; and potential to impede or substantially delay emergency access will be provided. The transportation analysis will focus on the potential impacts that would result from construction activities of future projects resulting from the proposed amendments. The transportation section of the PEIR will summarize the existing environmental setting, regulatory setting, impact analysis, and mitigation measures (if applicable).

4.2.11 Utilities and Service Systems

The PEIR utilities and service systems analysis will focus on impacts related to the adequacy of existing electrical transmission and distribution infrastructure associated with implementation of the proposed comprehensive plan amendments. The analysis will summarize the existing electrical infrastructure serving the project area and qualitatively address potential impacts associated with the construction of new or expanded transmission lines, substations, and related facilities necessary to allow for operation of future utility-scale solar installations and other smaller scales of solar energy systems throughout the County.

4.2.12 Cumulative Impacts

CEQA Guidelines Section 15355 defines “cumulative impacts” as follows:

“Cumulative impacts” refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

- (a) The individual effects may be changes resulting from a single project or a number of separate projects.*
- (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

The PEIR will assess the significant cumulative impacts to which the project may make a “cumulatively considerable” contribution (CEQA Guidelines Section 15130).

4.3 Environmental Topics Not Included in the PEIR

The PEIR will not include the following resource areas since based on the initial environmental review it was determined that the Project would not result in a potentially significant impact in the following areas: Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Mineral Resources; Population and Housing; Public Services; Recreation; and Wildfire.

4.4 Alternatives Analysis

The PEIR will describe a reasonable range of alternatives to the project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, as required by CEQA Guidelines Section 15126.6. The alternatives discussion in the PEIR will include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. The PEIR will programmatically describe the major characteristics and significant environmental effects of each alternative. The PEIR analysis will also include a brief discussion of each alternative considered but rejected from further analysis in the PEIR (CEQA Guidelines Section 15126.6).

4.5 Other CEQA Required Discussions

The PEIR will include a section that addresses other issues for which CEQA Guidelines Section 15126 requires analysis beyond the environmental topical areas described above. In this section, the PEIR will analyze the project's additional possible impacts, including growth inducement and significant irreversible environmental changes.

5.0 Public Input

The County welcomes all input on the scope and content of the PEIR in response to the Notice of Preparation, and especially welcomes responses that will assist the County in:

1. Identifying significant environmental issues that could occur as a result of the proposed Project;
2. Identifying and evaluating potential alternatives to the Project as proposed; and
3. Identifying past, present, and reasonably foreseeable future projects whose impacts should be considered in the cumulative effects analysis.

6.0 References

California Energy Commission. 2024. "Distributed Energy Resources." Available at: <https://www.energy.ca.gov/data-reports/california-energy-planning-library/distributed-energy-resources>. Accessed October 22, 2024.

"Solar@Scale: A Local Government Guidebook for Improving Large-Scale Solar Development Outcomes." Third Edition. Prepared by Solar@Scale, the International City/County Management Association, and the American Planning Association. December 2023.

CITY of CARPINTERIA, CALIFORNIA



December 9, 2024

Zoe Carlson
Long Range Planning Division
Planning and Development Department
County of Santa Barbara
123 East Anapamu Street
Santa Barbara, CA 93101

Via email to: carlsonz@countyofsb.org

Re: NOP for Utility-Scale Solar Amendments PEIR

Dear Ms. Carlson:

Thank you for the opportunity to comment on Santa Barbara County's ("County") Notice of Preparation ("NOP") for the Program Environmental Impact Report ("PEIR") for the proposed Utility-Scale Solar Amendments. The City of Carpinteria ("City") understands that the proposed Project would include zoning and policy amendments to allow for a tiered system of permitting solar energy facilities. The City recognizes the need to increase energy reliability in the region while decreasing non-renewable energy consumption. We look forward to reviewing the Draft PEIR and request that the following comments are addressed in the document.

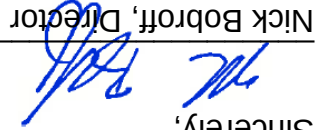
1. Please evaluate the potential for the proposed Project to have direct, indirect and cumulative impacts on visual resources in Carpinteria Valley, including from structural elements, landform modification, light, and glare.
2. Please evaluate the potential for the proposed Project to have direct, indirect and cumulative impacts on agricultural resources, and in particular, coastal agriculture. As it relates to agricultural resource impacts, please consider prohibition of Tier 3 and Tier 4 facilities within the Carpinteria Agricultural Overlay District, either in the proposed Project or as an alternative. If such facilities are to be permitted in the Carpinteria Agricultural Overlay District, please consider limiting them to sites that have existing development (i.e., avoid open agricultural lands).
3. The Environmental Scoping Document states that Hydrology was screened out as a potentially significant impact and, therefore, will not be included as a topic in the PEIR. However, the construction of community and utility scale energy facilities requires a tremendous amount of water. Potential direct and cumulative impacts to water supplies should be analyzed in detail in the PEIR. As part of the water supply

analysis, the PEIR should discuss potential implications to regional efforts under the Sustainable Groundwater Management Act.

4. The Environmental Scoping Document states that Wildfire was screened out as a potentially significant impact and, therefore, will not be included as a topic in the PEIR. Yet, construction and operation of large-scale energy facilities have the potential to increase wildfire risks in the study area. Potential direct and cumulative impacts related to wildfire should be analyzed in detail in the PEIR.

We thank you for taking the time to consider and address our comments. If you have any questions or comments regarding this letter, please contact Mindy Fogg, Principal Planner, at 805-755-4408 or at mindyf@carpinteriaca.gov.

Sincerely,



Nick Bobroff, Director

Community Development Department

Cc. Lisa Plowman, Planning Director (lpowman@countyofsb.org)
Alex Tuttle, Long Range Division Deputy Director (atuttle@countyofsb.org)



December 9, 2024

Sent Via Email to:
carlsonz@countyofsb.org

CITY COUNCIL

Paula Perotte
Mayor

Luz Reyes-Martín
*Mayor Pro Tempore,
District 1*

Stuart Kasdin
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Kyle Richards
Councilmember

CITY MANAGER
Robert Nisbet

Zoe Carlson
Senior Planner
Long Range Planning Division
Santa Barbara County Planning and Development Department
123 East Anapamu Street
Santa Barbara, CA 93101

**RE: Notice of Preparation of Program Environmental Impact Report on
Utility-Scale Solar Amendments – City of Goleta Comments**

Dear Zoe Carlson:

Thank you for the opportunity to provide comments on the Notice of Preparation (NOP) for the Program Environmental Impact Report (PEIR) concerning the County's proposed Utility-Scale Solar Amendments. The City of Goleta appreciates the County's efforts to address climate change and energy sustainability through increased solar energy development. We would like to highlight several key considerations that we believe should be analyzed in the PEIR to ensure the amendments achieve their objectives while preserving the County's natural and agricultural resources and the surrounding communities, including Goleta.

Preservation of Agricultural Land

The proposed amendments would allow utility-scale and community-scale solar projects on land zoned Agricultural I (AG-I) and Agricultural II (AG-II), among other zoning districts. It is essential to evaluate the potential impacts of permitted solar projects on the long-term viability of agricultural land throughout the County. Specifically, the cumulative impacts of large-scale solar development on agricultural productivity, water resources, and soil health should be thoroughly studied. Additionally, mitigation measures should include clear requirements for restoration plans to ensure agricultural land can return to its prior use when solar facilities are no longer in operation.

Viewshed and Visual Impacts

Utility-scale solar projects, by their nature, often occupy large areas of land and can significantly alter the visual character of rural and agricultural landscapes. To this end, the PEIR should include detailed visual simulations of potential projects from key public vantage points. This analysis should address potential impacts on scenic corridors, including those adjacent to the City of Goleta, such as views from Highway 101, the foothills, and coastal areas. Additionally, design standards should be considered to reduce visual impacts, such as requiring landscaping, buffering, or siting projects away from high visibility areas. In particular, the siting of utility-scale solar photovoltaic should not be allowed on slopes that are highly visible. Siting of such projects should not alter the visual character of rural areas or agricultural and open space lands.

Alternatives Analysis

The City encourages the County to prioritize alternatives that reduce the reliance on agricultural land. For example:

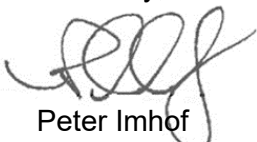
- Prioritizing the siting of solar facilities on disturbed or marginal lands rather than prime agricultural lands.
- Prioritizing and incentivizing rooftop solar, solar shade structures and smaller-scale projects that integrate with existing infrastructure within already urbanized areas, such as parking lots or already developed industrial and business park areas.

Cumulative Impacts

Given the County's other ongoing initiatives, including the Agricultural Enterprise Ordinance, the PEIR should assess how the proposed amendments interact with other policies and projects. A cumulative impacts analysis should address potential overlapping effects on agricultural resources, rural character, and viewsheds.

We appreciate the County's thoughtful approach to balancing renewable energy development while balancing the need to protect agricultural resources and viewsheds, and your consideration of our comments as you move forward with the Utility-Scale Solar Amendments PEIR.

Sincerely,



Peter Imhof
Planning and Environmental Review Department Director

cc: Robert Nisbet, City Manager
Anne Wells, Advance Planning Manager

From: [Clara Nagy McBane](#)
To: [Carlson, Zoe](#)
Subject: Utility Scale PEIR
Date: Wednesday, November 13, 2024 2:07:58 PM

Caution: This email originated from a source outside of the County of Santa Barbara. Do not click links or open attachments unless you verify the sender and know the content is safe.

Hi County of SB -

I would like to encourage you to consider the addition of BESS (battery) systems for community scale within the community solar definition, as most solar systems moving forward will be co-located with a Battery to best serve the grid.

There will be some that argue that a BESS will also be included in the utility scale solar side, which I think is generally true, but perhaps less true than the community scale systems.

My contact info is below.

Thanks,
Clara

Clara Nagy McBane, PE
clara@ventura.energy
805.901.2913

Santa Barbara County Board of Supervisors
123 East Anapamu Street
Santa Barbara, CA 93101
December 9, 2024

Re: Comments on Utility Scale Solar Program Environmental Impact Report

The Clean Coalition and Community Environmental Council support the progress the County is making toward a new utility scale solar ordinance. We have a few recommendations to increase clarity and align with existing state and federal policies.

- Tier 1 projects should include projects of any size deployed on a rooftop or parking lots and parking structure.
- Tier 1 small ground-mounted solar systems should be allowed up to 1 acre.
 - Tier 2 preferred range: 1-5 acres
 - Tier 3 preferred range: 5 acres-30 acres
 - Tier 4 preferred range: Greater than 30 acres

Proposed Tiers and Sizing

Category	Proposed Classification	Proposed Allowable System Size
Tier 1	Building-integrated or roof-mounted solar energy system	All
	Small ground-mounted solar energy system	Up to and including 0.5 acres
Tier 2	Large ground-mounted solar energy system	Between 0.5 and up to and including 3.0 acres
Tier 3	Community-scale solar energy facility	Between 0.5 and up to and including 30 acres
Tier 4	Utility-scale solar energy facility	Greater than 30 acres

Proposed Permit Requirements

Tier	Zones Where Allowed	Planning Permit Requirement
Tier 1	All zones	Exempt ⁵
Tier 2	All zones	Zoning Clearance (LUDC and MLUDC) or CDP
Tier 3	AG-I, AG-II; PI; M-1, M-2, M-RP, M-CR, M-CD	Minor CUP
	PU	Development Plan
Tier 4	AG-I, AG-II; PI; M-1, M-2, M-RP, M-CR, M-CD	Major CUP
	PU	Development Plan

Tier 1 projects should include projects of any size deployed on a rooftop or parking lot/structure.

In the proposed table on classification and system size, above, the only full exemption is for rooftop projects. Small ground-mounted solar projects up to 0.5 acres are also included in Tier 1, though the ground-mounted requirements require a zoning clearance or CDP. Clean Coalition recommends that the full exemption be extended to any solar canopy project deployed on a parking lot of parking structure as well. Under the proposed Tier 1 definition, a developer seeking to deploy a FOM rooftop solar array and FOM solar canopy at the same site would not need a permit for the rooftop array but would need a permit for the solar canopy. From an environmental impacts perspective there is little difference between a rooftop and solar canopy if both are already located on previously developed land. Facilities in the County should be encouraged to maximize the use of existing space for solar deployments, which includes both rooftops and parking lots/structures. With the correction, the first section of Tier 1 should read: “Building-integrated, roof-mounted, or parking canopy solar energy system”. This change is in line with the County’s rationale and does not change the impact of the policy.

Tier 1 small ground-mounted solar systems should be allowed up to 1 acre.

The second part of Tier 1 should read “up to and including 1.0 acres.” We support a streamlined set of requirements for small projects, like the small ground-mounted solar system deployed at the County’s Calle Real property. Though the 1 MW (roughly 1 acre) ground-mounted project is connected behind-the-meter, the amount of land it takes up is exactly the same as a 1 MW ground-mounted solar system connected FOM. The only difference between the two projects is the point of interconnection. Deploying small projects should be allowed throughout the County without any onerous permitting requirements, regardless of grid connection, which is why we support increasing the acreage allowed for ground-mounted projects from 0.5 to 1 acre. 1 acre (1 MW) is commonly used to differentiate small and large projects in state energy programs. For example, the Net Energy Metering (NEM) program has different interconnection and application requirements for projects above and below 1 MW. The Self Generation Incentive Program (SGIP) and the Community Solar Shared Renewables program also have different incentive rates for “small projects” under 1 MW. Increasing the acreage limit to 1 acre for small projects aligns with established state practices, supports the deployment of small-scale solar systems, and eliminates unnecessary barriers to development, regardless of grid connection type.

The size for a Tier 2 project should be increased to 5 acres.

Numerous programs exist for solar projects that are deemed “community-scale”, which refers to projects in the range of 500 kW and 5 MW. For example, a newly passed community solar program allows the deployment of projects sized as large as 5 MW, though most projects will likely be sized around 3 MW in order to secure state and federal funds. Ensuring that the County has a definition that is in line with the state and federal government will ensure that developers

looking to site projects will see the County as a viable location. Therefore, we recommend that the definition for Tier 2 should be changed to, “Between 1.0 and up to and including 5.0 acres”.

We strongly support allowing Tier 2 FOM solar projects in any zone, since FOM solar is a critical piece of resilience solutions like Community Microgrids. The Microgrid Incentive Program (MIP) is designed to subsidize Community Microgrids and offers funding to cover the cost of FOM resources. MIP projects must have energy available to cover resilience needs for four days if the grid goes out, requiring a large amount of generation capacity. The proposed definition could potentially result in a MIP applicant needing a solar system large enough to be categorized in Tier 3, restricting siting opportunities and making it very difficult to meet program eligibility criteria. Increasing the size limit to 5 MW ensures that a Community Microgrid can be deployed anywhere within the county using the MIP or the new Community Microgrid Enablement Tariff.

A project should only be categorized in one Tier. The size range for a Tier 2 project should be separate from the size range for Tier 3 projects.

The proposed definitions for Tier 2 and Tier 3 projects overlap. The range for Tier 2 systems is listed as 0.5-3 acres and Tier 3 is systems deployed on 0.5-30 acres. Instead, the lower end of Tier 3 should begin at the upper range of the spectrum for Tier 2 projects. When incorporating the previous recommendation along with this one, Tier 2 should read, “Between 1.0 and up to and including 5.0 acres,” and Tier 3 should read, “Between 5.0 and up to and including 30 acres.”

We urge the County to incorporate these three recommended changes to enable streamlined solar deployments of FOM solar on built environments. Each deployment of local solar increases the resilience of the local distribution grid and brings the state a step closer to achieving its clean energy goals.

Sincerely,

Ben Schwartz
Policy Manager
Clean Coalition
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Santa Barbara, CA 93101
ben@clean-coalition.org
Phone: 626-232-7573

Sigrid Wright { she / hers }
CEO/Executive Director
Community Environmental Council
P.O. Box 90660
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(805) 730-0201 office



December 9, 2024

Zoe Carlson, Senior Planner
Santa Barbara Planning and Development
Long Range Planning Division
123 E. Anapamu Street
Santa Barbara, CA 93101

. RE: Comments on the Environmental Scoping Document for Utility-Scale Solar Amendments Project

Dear Ms. Carlson,

The Gaviota Coast Conservancy (GCC) is a California public benefit organization dedicated to permanently protecting the rural character and environmental integrity of the Gaviota Coast for present and future generations. The Gaviota Coast is Southern California's largest continuous stretch of rural coastal land and contains its healthiest remaining coastal ecosystem.ⁱ One of only five Mediterranean climate regions which globally encompass only 2% of the world's land area but 20% of its plant species, the Gaviota Coast is a recognized biodiversity hotspot and refuge for endemic species that are threatened by human development.ⁱⁱ Important Native American cultural sites and historic resources are also prevalent throughout the Gaviota Coast. To protect these irreplaceable resources, GCC has consistently fought to prevent industrialization of the Gaviota Coast.

The Gaviota Coast Plan was developed over many years through a structured process that incorporated the input of a diverse range of stakeholders (the GavPAC), refined the Plan through many public hearings before the Planning Commission, Board of Supervisors, and Coastal Commission, to arrive at a document that reflects the goals and objectives of the community. Future opportunities for renewable energy projects on the Gaviota Coast were discussed throughout the process, and the Gaviota Coast Plan struck a delicate balance in articulating what future enabling ordinance(s) should be considered. Specifically, the Gaviota Coast Plan provides:

Action TEI-7: Enabling Ordinance for Small Scale, Community Scale, and Utility Scale Wind Energy Generation and Community Scale Solar Energy Generation. Create an enabling ordinance for small-scale wind energy into the Coastal Zone. If results from studies shows that there are appropriate resources in this area then create an enabling ordinance for community and utility-scale wind energy and extend the enabling ordinance for community-scale solar energy into the Coastal Zone, west of the Gaviota Pass watershed.

Importantly, Action TEI-7 provides only for community-scale - and not utility-scale - solar energy projects. This recognizes that utility-scale solar energy projects may not be appropriate for the Gaviota Coastⁱⁱⁱ. Visual impacts to public viewsheds are heightened on the eastern Gaviota Coast, and biological and cultural resource constraints are heightened on areas west of Gaviota pass that are less accessible to the public (and where sensitive resources are already being impacted by the Strauss Wind Energy Project west of Lompoc, and by the dramatic increase in rocket launch activity from Vandenberg Space Force Base).

GCC understands the importance of transitioning to renewable energy to avoid the catastrophic effects of climate change. Tier 1-3 solar energy systems including community-scale solar energy facilities on the Gaviota Coast can be a meaningful part of this transition. However, protecting Earth's biodiversity is also critically important, and utility-scale solar energy facilities, *which by definition cover an area greater than 30 acres*, should not be considered for a biodiversity hotspot like the Gaviota Coast.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ana Citrin', written over a horizontal line.

Ana Citrin
GCC Legal and Policy Director

ⁱ Gaviota Coast Plan (County of Santa Barbara, 2018), p. 2-1.

ⁱⁱ See Jack and Laura Dangermond Preserve, Integrated Resources Management Plan, The Nature Conservancy, available at:
https://www.scienceforconservation.org/assets/downloads/tnc_Dangermond_Preserve_IRMP.pdf

ⁱⁱⁱ See Gaviota Coast Plan, pp. 7-23 – 7-24.

Appendix B

Air Quality Calculations and Output Files



B-1 Assumptions

Tier 1 and Tier 2 Assumptions
Construction and Operations Assumptions

Site (acres): 5
Lot Area (sqft): 217,800
Location: Santa Barbara County
CEC Forecasting Climate Zone: 11
Utility: SCE
Operational Year: 2026

Project Land Uses								
Land Use	CalEEMod LandUse Type	CalEEMod LandUse Subtype	Amount	Unit	Building sq.ft.	Acres		Landscaping sf
Project Site	Parking	Other non-asphalt surfaces	0	SQFT	0	5		
Land Use Type Totals								
	Parking	Other non-asphalt surfaces	0.000	SQFT	0	5		

Construction Schedule					Construction Trips				
Phase	Start Date	Completion Date	Work Days	# Workers/Day	# Worker Trips/Day (In/Out) ²	# Vendors/Day	# Vendor Trips/Day (In/Out)	# Hauling/Concrete Trucks Per Day (In/Out)	# Hauling/Concrete Truck Trips Per Day (In/Out)
Site Preparation	1/1/2026	4/30/2026	86	26	52	6	12	0	0
Grading	5/1/2026	6/30/2026	43	30	60	6	12	10	20
Building Construction	7/1/2026	10/31/2028	610	30	60	25	50	0	0
			739						

Vendor Trips	
	Amount
Panel Delivery Daily Trucks	10
Maximum Trips/Day (In/Out)	20
Steel Delivery Daily Trucks	7
Maximum Trips/Day (In/Out)	14
Misc. Electrical Components Daily Trucks	5
Minimum Haul Trips/Day	10
Water Vendor Trips/Day	6
Daily Vendor Trucks per day	25
Maximum Vendor Trips/Day (In/Out)	50

Grading		
Area (Acres)	5	
Haul trucks/Day	10	Assumption
Haul trips/Day (in/out)	20	Assumption
Estimated Haul Days	43	From estimated schedule grading phase
Total Haul Trips (in/out)	860	
Grading over area times	3	Assumption
Daily Graded Area (Acres)	15	
Haul Truck Capacity (CY)	10	Assumption
Daily Haul Amount (CY)	200	calculation
Estimated Total Haul Amount Export (CY)	86000	calculation

Construction Equipment by Phase

Number of each piece of equipment
Hrs/day hours per day of operating per construction phase

Phase	Equipment Type	#	Hrs/day	Notes
Site Preparation	Graders	1	8	
Site Preparation	Rubber Tired Dozers	1	8	
Site Preparation	Tractors/Loaders/Backhoes	1	8	
Site Preparation	Offroad Truck	1	8	
Site Preparation	Generator Set	1	8	
Grading	Graders	1	8	
Grading	Rubber Tired Dozers	1	8	
Grading	Tractors/Loaders/Backhoes	2	8	
Grading	Offroad Truck	1	8	
Grading	Generator Set	1	8	
Grading	Scraper	2	8	
Building Construction	Cranes	1	8	
Building Construction	Forklifts	1	8	
Building Construction	Tractors/Loaders/Backhoes	1	8	
Building Construction	Welders	3	8	
Building Construction	Trencher	1	8	
Building Construction	Drig Rig	1	8	
Building Construction	Offroad Truck	1	8	
Building Construction	Generator Set	1	8	

TIER 1 AND TIER 2 MODEL ASSUMPTIONS

Land Use Size	5 acres		
Earth Movement	86,000 cubic yards		
Construction Phase	Modeling Duration	Equipment	Vehicle Trips (One-Way Trips)
Site Preparation	86 Days	Graders: 1 Rubber Tired Dozers: 1 Tractors/Loaders/Backhoes: 1 Offroad Truck: 1 Generator Set: 1	Worker: 52 Vendors: 12 Hauling: 0
Grading	43 Days	Graders: 1 Rubber Tired Dozers: 1 Tractors/Loaders/Backhoes: 2 Offroad Truck: 1 Generator Set: 1 Scraper: 2	Worker: 60 Vendors: 12 Hauling: 20
Construction	610 Days	Cranes: 1 Forklifts: 1 Tractors/Loaders/Backhoes: 1 Welders: 3 Trencher: 1 Drill Rig: 1 Offroad Truck: 1 Generator Set: 1	Worker: 60 Vendors: 50 Hauling: 0
SOURCE: ESA 2025			

Tier 3 and Tier 4 Assumptions
Construction and Operations Assumptions

Site (acres): 600
Lot Area (sqft): 26,136,000
Location: Santa Barbara County
CEC Forecasting Climate Zone: 11
Utility: SCE
Operational Year: 2026

Project Land Uses

Land Use	CalEEMod LandUse Type	CalEEMod LandUse Subtype	Amount	Unit	Building sq.ft.	Acres		Landscaping sf
Project Siite	Parking	Other non-asphalt surfaces	0	SQFT	0	600		
Land Use Type Totals								
	Parking	Other non-asphalt surfaces	0.000	SQFT	0	600		

Construction Schedule

					Construction Trips				
Phase	Start Date	Completion Date	Work Days	# Workers/Day ¹	# Worker Trips/Day (In/Out) ²	# Vendors/Day	# Vendor Trips/Day (In/Out)	# Hauling/Concrete Trucks Per Day (In/Out)	# Hauling/Concrete Truck Trips Per Day (In/Out)
Site Preparation	1/1/2026	6/30/2026	129	50	100	6	12	0	0
Grading	7/1/2026	9/30/2026	66	60	120	6	12	25	50
Building Construction	10/1/2026	5/31/2030	957	60	120	50	100	0	0
			1152						

Double workers

Vendor Trips

Amount		
Panel Delivery Daily Trucks	1,200	Assumption
Maximum Trips/Day (In/Out)	40	Assumption
Steel Delivery Daily Trucks	840	Assumption
Maximum Trips/Day (In/Out)	28	Assumption
Misc. Electrical Components Daily Trucks	600	Assumption
Minimum Haul Trips/Day	20	Assumption
Water Vendor Daily Trucks	6	Assumption
Daily Water Truck Trips	12	Assumption
Daily Vendor trucks per day	50	
Maximum Vendor Trips/Day (In/Out)	100	Make this 100 trips/day

Grading		
Area (Acres)	600	
Haul trucks/Day	25	Assumption
Haul trips/Day (in/out)	50	Assumption Make this 50 trips/day (in/out)
Estimated Haul Days	66	From estimated schedule grading phase
Total Haul Trips (in/out)	3300	
Grading over area times	3	Assumption
Daily Graded Area (Acres)	30	30 acres assumed to be graded on a max day
Haul Truck Capacity (CY)	10	Assumption
Daily Haul Amount (CY)	500	calculation
Estimated Total Haul Amount Export (CY)	825000	calculation

Construction Equipment by Phase

Number of each piece of equipment
Hrs/day hours per day of operating per construction phase

Phase	Equipment Type	#	Hrs/day	Notes
Site Preparation	Graders	4	8	
Site Preparation	Rubber Tired Dozers	4	8	
Site Preparation	Tractors/Loaders/Backhoes	4	8	
Site Preparation	Offroad Truck	4	8	
Site Preparation	Generator Set	4	8	
Grading	Graders	4	8	
Grading	Rubber Tired Dozers	4	8	
Grading	Tractors/Loaders/Backhoes	8	8	
Grading	Offroad Truck	4	8	
Grading	Generator Set	4	8	
Grading	Scraper	4	8	
Building Construction	Cranes	4	8	
Building Construction	Forklifts	4	8	
Building Construction	Tractors/Loaders/Backhoes	4	8	
Building Construction	Welders	12	8	
Building Construction	Trencher	4	8	
Building Construction	Drig Rig	4	8	
Building Construction	Offroad Truck	4	8	
Building Construction	Generator Set	4	8	

Bump up equipment numbers one more time.

TIER 3 AND TIER 4 MODEL ASSUMPTIONS

Land Use Size	600 acres		
Earth Movement	825,000 cubic yards		
Construction Phase	Modeling Duration	Equipment	Vehicle Trips (One-way Trips)
Site Preparation	129 Days	Graders: 4 Rubber Tired Dozers: 4 Tractors/Loaders/Backhoes: 4 Offroad Truck: 4 Generator Set: 4	Worker: 100 Vendors: 12 Hauling: 0
Grading	66 Days	Graders: 4 Rubber Tired Dozers: 4 Tractors/Loaders/Backhoes: 8 Offroad Truck: 4 Generator Set: 4 Scraper: 4	Worker: 120 Vendors: 12 Hauling: 50
Construction	957 Days	Cranes: 4 Forklifts: 4 Tractors/Loaders/Backhoes: 4 Welders: 12 Trencher: 4 Drill Rig: 4 Offroad Truck: 4 Generator Set: 4	Worker: 120 Vendors: 100 Hauling: 0

SOURCE: ESA 2025

B-2 Construction Air Quality Calculations and Modeling

Santa Barbara County Utility-Scale Solar Amendments

Air Quality Construction Analysis - Tier 1 and Tier 2, 5 Acre Project

Regional Maximums Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	tons/year					
Site Preparation - 2026	0.09	0.68	0.78	0.00	0.16	0.09
Grading - 2026	0.05	0.41	0.45	0.00	0.09	0.05
Building Construction - 2026	0.14	1.08	1.37	0.00	0.07	0.04
Building Construction - 2027	0.27	2.06	2.70	0.01	0.14	0.08
Building Construction - 2028	0.22	1.64	2.23	0.01	0.11	0.06
Project Annual Maximum Emissions	0.27	2.06	2.70	0.01	0.16	0.09
SBAPCD Threshold (tons/year)	25.00	25.00	None	None	None	None
Exceed Threshold (Y/N)?	No	No				

a. Thresholds of Significance are from Santa Barbara County Air Pollution Control District (SBAPCD), Scope and Content of Air Quality Sections in Environmental Documents, January 2022.

Santa Barbara County Utility-Scale Solar Amendments
Air Quality Construction Analysis - Tier 3 and Tier 4, 600 Acre Project

Regional Maximums	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	tons/year					
Site Preparation - 2026	0.52	4.02	4.38	0.01	0.93	0.52
Grading - 2026	0.37	3.19	3.30	0.01	0.61	0.32
Building Construction - 2026	0.26	2.06	2.57	0.01	0.11	0.07
Building Construction - 2027	1.01	7.84	10.14	0.02	0.40	0.26
Building Construction - 2028	0.98	7.50	10.11	0.02	0.38	0.24
Building Construction - 2029	0.95	7.18	9.98	0.02	0.36	0.22
Building Construction - 2030	0.38	2.90	4.10	0.01	0.14	0.09
Project Annual Maximum Emissions	1.01	7.84	10.14	0.02	0.93	0.52
SBAPCD Threshold	25.00	25.00	None	None	None	None
Exceed Threshold (Y/N)?	No	No				

a. Thresholds of Significance are from Santa Barbara County Air Pollution Control District (SBAPCD), Scope and Content of Air Quality Sections in Environmental Documents, January 2022.

B-3 CalEEMod Output Files

Santa Barbara County Solar - Tier 1 & 2 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Santa Barbara County Solar - Tier 1 & 2
Construction Start Date	1/1/2030
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.40
Precipitation (days)	22.8
Location	Santa Barbara County, CA, USA
County	Santa Barbara
City	Santa Barbara
Air District	Santa Barbara County APCD
Air Basin	South Central Coast
TAZ	3389
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Other Non-Asphalt Surfaces	0.00	Acre	5.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.77	2.28	18.9	20.9	0.05	0.74	3.59	4.33	0.67	1.55	2.22	—	5,989	5,989	0.27	0.30	4.72	6,091
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.58	2.16	16.4	21.0	0.05	0.68	3.14	3.82	0.62	1.43	2.05	—	5,319	5,319	0.21	0.17	0.09	5,376
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.84	1.54	11.9	14.8	0.03	0.44	1.37	1.81	0.40	0.57	0.97	—	3,781	3,781	0.15	0.12	1.02	3,823
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.34	0.28	2.17	2.70	0.01	0.08	0.25	0.33	0.07	0.10	0.18	—	626	626	0.03	0.02	0.17	633

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.77	2.28	18.9	20.9	0.05	0.74	3.59	4.33	0.67	1.55	2.22	—	5,989	5,989	0.27	0.30	4.72	6,091

2027	2.49	2.08	15.7	20.7	0.05	0.48	0.60	1.07	0.44	0.15	0.59	—	5,300	5,300	0.21	0.17	3.32	5,360
2028	2.41	2.01	15.0	20.5	0.05	0.43	0.60	1.03	0.39	0.15	0.54	—	5,273	5,273	0.21	0.17	3.00	5,331
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.58	2.16	16.4	21.0	0.05	0.68	3.14	3.82	0.62	1.43	2.05	—	5,319	5,319	0.21	0.17	0.09	5,376
2027	2.49	2.08	15.8	20.8	0.05	0.48	0.60	1.07	0.44	0.15	0.59	—	5,293	5,293	0.21	0.17	0.09	5,350
2028	2.41	2.01	15.1	20.6	0.05	0.43	0.60	1.03	0.39	0.15	0.54	—	5,266	5,266	0.21	0.17	0.08	5,322
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.84	1.54	11.9	14.2	0.03	0.44	1.37	1.81	0.40	0.57	0.97	—	3,609	3,609	0.15	0.12	1.00	3,649
2027	1.78	1.49	11.3	14.8	0.03	0.34	0.42	0.76	0.31	0.10	0.42	—	3,781	3,781	0.15	0.12	1.02	3,823
2028	1.44	1.20	8.99	12.2	0.03	0.26	0.35	0.61	0.23	0.09	0.32	—	3,143	3,143	0.12	0.10	0.77	3,177
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.34	0.28	2.17	2.60	0.01	0.08	0.25	0.33	0.07	0.10	0.18	—	598	598	0.03	0.02	0.16	604
2027	0.32	0.27	2.06	2.70	0.01	0.06	0.08	0.14	0.06	0.02	0.08	—	626	626	0.03	0.02	0.17	633
2028	0.26	0.22	1.64	2.23	0.01	0.05	0.06	0.11	0.04	0.02	0.06	—	520	520	0.02	0.02	0.13	526

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.25	1.89	15.4	16.1	0.03	0.67	—	0.67	0.62	—	0.62	—	3,675	3,675	0.15	0.03	—	3,687

Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.25	1.89	15.4	16.1	0.03	0.67	—	0.67	0.62	—	0.62	—	3,675	3,675	0.15	0.03	—	3,687
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	0.45	3.63	3.79	0.01	0.16	—	0.16	0.15	—	0.15	—	866	866	0.04	0.01	—	869
Dust From Material Movement	—	—	—	—	—	—	0.65	0.65	—	0.31	0.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.66	0.69	< 0.005	0.03	—	0.03	0.03	—	0.03	—	143	143	0.01	< 0.005	—	144

Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.22	0.15	1.79	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	320	320	0.02	0.01	1.34	327
Vendor	0.02	0.01	0.32	0.15	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	209	209	0.01	0.03	0.50	219
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.22	0.17	1.84	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	314	314	0.01	0.01	0.03	319
Vendor	0.02	0.01	0.33	0.15	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	209	209	0.01	0.03	0.01	219
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.42	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	74.0	74.0	0.01	< 0.005	0.14	75.3
Vendor	< 0.005	< 0.005	0.08	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.3	49.3	< 0.005	0.01	0.05	51.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.3	12.3	< 0.005	< 0.005	0.02	12.5
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.16	8.16	< 0.005	< 0.005	0.01	8.53
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.37	1.99	16.5	18.0	0.04	0.71	—	0.71	0.65	—	0.65	—	3,965	3,965	0.16	0.03	—	3,979
Dust From Material Movement	—	—	—	—	—	—	2.80	2.80	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.23	1.94	2.12	< 0.005	0.08	—	0.08	0.08	—	0.08	—	467	467	0.02	< 0.005	—	469
Dust From Material Movement	—	—	—	—	—	—	0.33	0.33	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.35	0.39	< 0.005	0.02	—	0.02	0.01	—	0.01	—	77.3	77.3	< 0.005	< 0.005	—	77.6

Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.25	0.18	2.06	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	370	370	0.02	0.02	1.55	377
Vendor	0.02	0.01	0.32	0.15	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	209	209	0.01	0.03	0.50	219
Hauling	0.11	0.03	1.97	0.67	0.01	0.03	0.36	0.39	0.02	0.10	0.12	—	1,445	1,445	0.08	0.23	2.67	1,517
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.24	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	42.7	42.7	< 0.005	< 0.005	0.08	43.4
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.7	24.7	< 0.005	< 0.005	0.03	25.8
Hauling	0.01	< 0.005	0.24	0.08	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	170	170	0.01	0.03	0.14	179
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.07	7.07	< 0.005	< 0.005	0.01	7.19
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.08	4.08	< 0.005	< 0.005	< 0.005	4.26
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.2	28.2	< 0.005	< 0.005	0.02	29.6

3.5. Building Construction (2026) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.23	1.87	14.9	18.2	0.04	0.51	—	0.51	0.47	—	0.47	—	4,084	4,084	0.17	0.03	—	4,098
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.23	1.87	14.9	18.2	0.04	0.51	—	0.51	0.47	—	0.47	—	4,084	4,084	0.17	0.03	—	4,098
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	5.35	6.57	0.01	0.18	—	0.18	0.17	—	0.17	—	1,471	1,471	0.06	0.01	—	1,476
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.98	1.20	< 0.005	0.03	—	0.03	0.03	—	0.03	—	243	243	0.01	< 0.005	—	244
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.27	0.25	0.18	2.06	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	370	370	0.02	0.02	1.55	377
Vendor	0.08	0.04	1.34	0.62	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	872	872	0.03	0.12	2.10	912
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.25	0.19	2.12	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	362	362	0.01	0.02	0.04	368
Vendor	0.07	0.04	1.38	0.64	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	872	872	0.03	0.12	0.05	910
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.07	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.24	133
Vendor	0.03	0.01	0.50	0.23	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	314	314	0.01	0.04	0.33	328
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.13	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.6	21.6	< 0.005	< 0.005	0.04	22.0
Vendor	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	—	52.0	52.0	< 0.005	0.01	0.05	54.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.16	1.81	14.3	18.2	0.04	0.46	—	0.46	0.43	—	0.43	—	4,083	4,083	0.17	0.03	—	4,097

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	2.16	1.81	14.3	18.2	0.04	0.46	—	0.46	0.43	—	0.43	—	4,083	4,083	0.17	0.03	—	4,097
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.54	1.29	10.2	13.0	0.03	0.33	—	0.33	0.30	—	0.30	—	2,917	2,917	0.12	0.02	—	2,927
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.28	0.24	1.86	2.37	0.01	0.06	—	0.06	0.06	—	0.06	—	483	483	0.02	< 0.005	—	485
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.24	0.16	1.92	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	363	363	0.01	0.02	1.42	370
Vendor	0.07	0.03	1.28	0.59	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	853	853	0.03	0.12	1.90	893
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.26	0.24	0.18	1.98	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	355	355	0.01	0.02	0.04	361
Vendor	0.07	0.03	1.33	0.61	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	854	854	0.03	0.12	0.05	892
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.17	0.13	1.37	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	254	254	0.01	0.01	0.44	258
Vendor	0.05	0.02	0.94	0.43	< 0.005	0.01	0.16	0.17	0.01	0.04	0.05	—	610	610	0.02	0.09	0.58	638
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.25	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	42.1	42.1	< 0.005	< 0.005	0.07	42.8
Vendor	0.01	< 0.005	0.17	0.08	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	101	101	< 0.005	0.01	0.10	106
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.09	1.75	13.6	18.1	0.04	0.42	—	0.42	0.39	—	0.39	—	4,084	4,084	0.17	0.03	—	4,098
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.09	1.75	13.6	18.1	0.04	0.42	—	0.42	0.39	—	0.39	—	4,084	4,084	0.17	0.03	—	4,098
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.25	1.04	8.14	10.8	0.02	0.25	—	0.25	0.23	—	0.23	—	2,438	2,438	0.10	0.02	—	2,446
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.49	1.98	< 0.005	0.05	—	0.05	0.04	—	0.04	—	404	404	0.02	< 0.005	—	405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.23	0.15	1.81	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	356	356	0.01	0.02	1.31	363
Vendor	0.07	0.03	1.23	0.56	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	832	832	0.03	0.12	1.70	870
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.23	0.17	1.86	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	349	349	0.01	0.02	0.03	354
Vendor	0.06	0.03	1.26	0.58	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	833	833	0.03	0.12	0.04	869
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.10	1.08	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	209	209	0.01	0.01	0.34	212
Vendor	0.04	0.02	0.75	0.34	< 0.005	0.01	0.13	0.14	< 0.005	0.04	0.04	—	497	497	0.02	0.07	0.44	519
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.20	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	34.5	34.5	< 0.005	< 0.005	0.06	35.1
Vendor	0.01	< 0.005	0.14	0.06	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	82.3	82.3	< 0.005	0.01	0.07	85.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2026	4/30/2026	5.00	86.0	—
Grading	Grading	5/1/2026	6/30/2026	5.00	43.0	—
Building Construction	Building Construction	7/1/2026	10/31/2028	5.00	610	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Site Preparation	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Site Preparation	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Grading	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	8.00	82.0	0.20
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50
Building Construction	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Building Construction	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—

Site Preparation	Worker	52.0	8.80	LDA,LDT1,LDT2
Site Preparation	Vendor	12.0	5.30	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	60.0	8.80	LDA,LDT1,LDT2
Grading	Vendor	12.0	5.30	HHDT,MHDT
Grading	Hauling	20.0	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	60.0	8.80	LDA,LDT1,LDT2
Building Construction	Vendor	50.0	5.30	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
------------	--	--	--	--	-----------------------------

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	86.0	0.00	—

Grading	—	86,000	43.0	0.00	—
---------	---	--------	------	------	---

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Non-Asphalt Surfaces	5.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005
2028	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	6.89	annual days of extreme heat
Extreme Precipitation	6.85	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

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

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

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

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

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A

Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

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

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

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

6.3. Adjusted Climate Risk Scores

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

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

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

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	14.6
AQ-DPM	57.9
Drinking Water	17.3
Lead Risk Housing	36.0
Pesticides	0.00
Toxic Releases	10.6
Traffic	25.1
Effect Indicators	—
CleanUp Sites	92.6
Groundwater	99.8
Haz Waste Facilities/Generators	89.6
Impaired Water Bodies	66.7
Solid Waste	96.3
Sensitive Population	—
Asthma	50.6
Cardio-vascular	29.9
Low Birth Weights	76.6
Socioeconomic Factor Indicators	—
Education	56.7
Housing	42.8
Linguistic	62.2

Poverty	65.4
Unemployment	70.9

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	30.30925189
Employed	38.86821506
Median HI	14.20505582
Education	—
Bachelor's or higher	65.18670602
High school enrollment	100
Preschool enrollment	20.53124599
Transportation	—
Auto Access	3.079686898
Active commuting	95.36763762
Social	—
2-parent households	4.914667009
Voting	77.24881304
Neighborhood	—
Alcohol availability	32.68317721
Park access	81.35506224
Retail density	98.57564481
Supermarket access	94.25125112
Tree canopy	37.67483639
Housing	—
Homeownership	4.093417169

Housing habitability	10.95855255
Low-inc homeowner severe housing cost burden	14.65417683
Low-inc renter severe housing cost burden	51.31528295
Uncrowded housing	36.04516874
Health Outcomes	—
Insured adults	39.07352752
Arthritis	14.6
Asthma ER Admissions	43.6
High Blood Pressure	15.9
Cancer (excluding skin)	24.3
Asthma	23.6
Coronary Heart Disease	8.3
Chronic Obstructive Pulmonary Disease	14.4
Diagnosed Diabetes	31.9
Life Expectancy at Birth	37.7
Cognitively Disabled	12.5
Physically Disabled	13.7
Heart Attack ER Admissions	85.2
Mental Health Not Good	35.7
Chronic Kidney Disease	10.6
Obesity	38.6
Pedestrian Injuries	99.7
Physical Health Not Good	30.9
Stroke	15.1
Health Risk Behaviors	—
Binge Drinking	63.5
Current Smoker	38.5
No Leisure Time for Physical Activity	42.3

Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	49.4
Children	33.8
Elderly	23.2
English Speaking	41.7
Foreign-born	42.4
Outdoor Workers	54.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	36.8
Traffic Density	35.3
Traffic Access	0.0
Other Indices	—
Hardship	70.8
Other Decision Support	—
2016 Voting	69.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	62.0
Healthy Places Index Score for Project Location (b)	38.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	upper bound of 5 acre project for Tier 1 and Tier 2
Construction: Construction Phases	Project phase assumptions based on similarly sized solar project schedules. See project assumptions for more details
Construction: Off-Road Equipment	Project construction equipment is based on solar projects of similar size. See project assumptions for more details
Construction: Trips and VMT	Trip generation is based on solar projects of similar size. See project assumptions for more details

Santa Barbara County Solar - Tier 3 & 4 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Santa Barbara County Solar - Tier 3 & 4
Construction Start Date	1/1/2030
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.40
Precipitation (days)	22.8
Location	Santa Barbara County, CA, USA
County	Santa Barbara
City	Santa Barbara
Air District	Santa Barbara County APCD
Air Basin	South Central Coast
TAZ	3389
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Other Non-Asphalt Surfaces	0.00	Acre	600	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.7	11.4	96.3	100.0	0.24	3.88	14.7	18.5	3.55	6.00	9.55	—	27,997	27,997	1.20	0.82	10.3	28,281
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.62	8.04	62.6	78.5	0.17	2.70	11.7	14.4	2.48	5.50	7.99	—	18,807	18,807	0.76	0.42	0.19	18,950
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.55	6.32	50.8	56.2	0.12	2.03	7.00	9.03	1.86	3.08	4.95	—	13,928	13,928	0.59	0.30	2.05	14,030
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.38	1.15	9.26	10.3	0.02	0.37	1.28	1.65	0.34	0.56	0.90	—	2,306	2,306	0.10	0.05	0.34	2,323

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	13.7	11.4	96.3	100.0	0.24	3.88	14.7	18.5	3.55	6.00	9.55	—	27,997	27,997	1.20	0.82	10.3	28,281

2027	9.31	7.77	60.0	77.7	0.17	1.88	1.19	3.07	1.73	0.30	2.03	—	18,765	18,765	0.75	0.42	6.64	18,915
2028	9.00	7.53	57.3	77.3	0.17	1.70	1.19	2.89	1.55	0.30	1.85	—	18,715	18,715	0.75	0.40	6.01	18,859
2029	8.70	7.29	55.0	76.5	0.17	1.55	1.19	2.74	1.42	0.30	1.72	—	18,655	18,655	0.73	0.40	5.39	18,798
2030	8.45	7.09	53.7	76.1	0.17	1.46	1.19	2.65	1.34	0.30	1.64	—	18,592	18,592	0.73	0.39	4.79	18,732
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	9.62	8.04	62.6	78.5	0.17	2.70	11.7	14.4	2.48	5.50	7.99	—	18,807	18,807	0.76	0.42	0.19	18,950
2027	9.31	7.78	60.2	77.9	0.17	1.88	1.19	3.07	1.73	0.30	2.03	—	18,752	18,752	0.76	0.42	0.17	18,895
2028	9.00	7.53	57.4	77.4	0.17	1.70	1.19	2.89	1.55	0.30	1.85	—	18,702	18,702	0.75	0.40	0.16	18,841
2029	8.70	7.29	55.1	76.7	0.17	1.55	1.19	2.74	1.42	0.30	1.72	—	18,642	18,642	0.74	0.40	0.14	18,781
2030	8.45	7.07	53.8	76.2	0.17	1.46	1.19	2.65	1.34	0.30	1.64	—	18,580	18,580	0.74	0.39	0.12	18,715
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	7.55	6.32	50.8	56.2	0.12	2.03	7.00	9.03	1.86	3.08	4.95	—	13,928	13,928	0.59	0.29	1.84	14,030
2027	6.65	5.55	43.0	55.5	0.12	1.34	0.84	2.18	1.24	0.21	1.45	—	13,394	13,394	0.54	0.30	2.05	13,498
2028	6.45	5.39	41.1	55.4	0.12	1.22	0.84	2.06	1.11	0.21	1.32	—	13,395	13,395	0.54	0.29	1.86	13,496
2029	6.21	5.20	39.4	54.7	0.12	1.11	0.84	1.95	1.01	0.21	1.22	—	13,315	13,315	0.53	0.29	1.66	13,416
2030	2.49	2.09	15.9	22.5	0.05	0.43	0.35	0.78	0.40	0.09	0.48	—	5,490	5,490	0.22	0.12	0.61	5,531
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.38	1.15	9.26	10.3	0.02	0.37	1.28	1.65	0.34	0.56	0.90	—	2,306	2,306	0.10	0.05	0.30	2,323
2027	1.21	1.01	7.84	10.1	0.02	0.25	0.15	0.40	0.23	0.04	0.26	—	2,218	2,218	0.09	0.05	0.34	2,235
2028	1.18	0.98	7.50	10.1	0.02	0.22	0.15	0.38	0.20	0.04	0.24	—	2,218	2,218	0.09	0.05	0.31	2,234
2029	1.13	0.95	7.18	9.98	0.02	0.20	0.15	0.36	0.18	0.04	0.22	—	2,205	2,205	0.09	0.05	0.27	2,221
2030	0.46	0.38	2.90	4.10	0.01	0.08	0.06	0.14	0.07	0.02	0.09	—	909	909	0.04	0.02	0.10	916

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	9.01	7.56	61.7	64.4	0.14	2.70	—	2.70	2.48	—	2.48	—	14,698	14,698	0.60	0.12	—	14,749
Dust From Material Movement	—	—	—	—	—	—	11.0	11.0	—	5.34	5.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	9.01	7.56	61.7	64.4	0.14	2.70	—	2.70	2.48	—	2.48	—	14,698	14,698	0.60	0.12	—	14,749
Dust From Material Movement	—	—	—	—	—	—	11.0	11.0	—	5.34	5.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	3.18	2.67	21.8	22.8	0.05	0.95	—	0.95	0.88	—	0.88	—	5,195	5,195	0.21	0.04	—	5,213

Dust From Material Movement	—	—	—	—	—	—	3.90	3.90	—	1.89	1.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	0.49	3.98	4.15	0.01	0.17	—	0.17	0.16	—	0.16	—	860	860	0.03	0.01	—	863
Dust From Material Movement	—	—	—	—	—	—	0.71	0.71	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.41	0.29	3.43	0.00	0.00	0.62	0.62	0.00	0.15	0.15	—	616	616	0.04	0.03	2.58	628
Vendor	0.02	0.01	0.32	0.15	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	209	209	0.01	0.03	0.50	219
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.45	0.42	0.32	3.54	0.00	0.00	0.62	0.62	0.00	0.15	0.15	—	604	604	0.02	0.03	0.07	613
Vendor	0.02	0.01	0.33	0.15	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	209	209	0.01	0.03	0.01	219
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.11	1.21	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	214	214	0.01	0.01	0.39	217
Vendor	0.01	< 0.005	0.12	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	74.0	74.0	< 0.005	0.01	0.08	77.3

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.22	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	35.3	35.3	< 0.005	< 0.005	0.07	36.0
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.2	12.2	< 0.005	< 0.005	0.01	12.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	12.8	10.8	90.7	94.1	0.22	3.81	—	3.81	3.50	—	3.50	—	23,435	23,435	0.95	0.19	—	23,516
Dust From Material Movement	—	—	—	—	—	—	12.9	12.9	—	5.56	5.56	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.32	1.95	16.4	17.0	0.04	0.69	—	0.69	0.63	—	0.63	—	4,238	4,238	0.17	0.03	—	4,252

Dust From Material Movement	—	—	—	—	—	—	2.34	2.34	—	1.01	1.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	0.36	2.99	3.10	0.01	0.13	—	0.13	0.12	—	0.12	—	702	702	0.03	0.01	—	704
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.18	0.18	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.53	0.50	0.35	4.12	0.00	0.00	0.75	0.75	0.00	0.17	0.17	—	739	739	0.05	0.03	3.09	754
Vendor	0.02	0.01	0.32	0.15	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	209	209	0.01	0.03	0.50	219
Hauling	0.27	0.07	4.92	1.67	0.02	0.07	0.90	0.97	0.04	0.25	0.30	—	3,613	3,613	0.19	0.56	6.68	3,793
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.07	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.24	133
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	37.8	37.8	< 0.005	0.01	0.04	39.5
Hauling	0.05	0.01	0.92	0.30	< 0.005	0.01	0.16	0.17	0.01	0.05	0.05	—	653	653	0.03	0.10	0.52	685
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.7	21.7	< 0.005	< 0.005	0.04	22.1

Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.27	6.27	< 0.005	< 0.005	0.01	6.54
Hauling	0.01	< 0.005	0.17	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	108	108	0.01	0.02	0.09	113

3.5. Building Construction (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	8.93	7.46	59.4	72.9	0.16	2.05	—	2.05	1.89	—	1.89	—	16,338	16,338	0.66	0.13	—	16,394
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.61	1.34	10.7	13.1	0.03	0.37	—	0.37	0.34	—	0.34	—	2,941	2,941	0.12	0.02	—	2,952
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.25	1.95	2.40	0.01	0.07	—	0.07	0.06	—	0.06	—	487	487	0.02	< 0.005	—	489
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.54	0.50	0.39	4.24	0.00	0.00	0.75	0.75	0.00	0.17	0.17	—	724	724	0.03	0.03	0.08	735
Vendor	0.15	0.08	2.76	1.28	0.01	0.02	0.44	0.47	0.02	0.12	0.15	—	1,745	1,745	0.07	0.25	0.11	1,821
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.07	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.24	133
Vendor	0.03	0.01	0.50	0.23	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	314	314	0.01	0.04	0.33	328
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.13	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.6	21.6	< 0.005	< 0.005	0.04	22.0
Vendor	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	—	52.0	52.0	< 0.005	0.01	0.05	54.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	8.65	7.23	57.1	72.7	0.16	1.86	—	1.86	1.71	—	1.71	—	16,333	16,333	0.66	0.13	—	16,389

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	8.65	7.23	57.1	72.7	0.16	1.86	—	1.86	1.71	—	1.71	—	16,333	16,333	0.66	0.13	—	16,389
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	6.18	5.16	40.8	51.9	0.12	1.33	—	1.33	1.22	—	1.22	—	11,666	11,666	0.47	0.09	—	11,706
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.13	0.94	7.45	9.48	0.02	0.24	—	0.24	0.22	—	0.22	—	1,931	1,931	0.08	0.02	—	1,938
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.51	0.48	0.32	3.84	0.00	0.00	0.75	0.75	0.00	0.17	0.17	—	726	726	0.02	0.03	2.85	739
Vendor	0.15	0.07	2.56	1.18	0.01	0.02	0.44	0.47	0.02	0.12	0.15	—	1,707	1,707	0.06	0.25	3.79	1,787
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.52	0.48	0.36	3.97	0.00	0.00	0.75	0.75	0.00	0.17	0.17	—	711	711	0.03	0.03	0.07	722
Vendor	0.15	0.07	2.65	1.21	0.01	0.02	0.44	0.47	0.02	0.12	0.15	—	1,708	1,708	0.07	0.25	0.10	1,784
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.34	0.25	2.74	0.00	0.00	0.53	0.53	0.00	0.12	0.12	—	508	508	0.02	0.02	0.88	517
Vendor	0.11	0.05	1.89	0.85	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,220	1,220	0.05	0.18	1.17	1,275
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.50	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	84.1	84.1	< 0.005	< 0.005	0.15	85.6
Vendor	0.02	0.01	0.34	0.16	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	202	202	0.01	0.03	0.19	211
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	8.37	7.00	54.5	72.6	0.16	1.67	—	1.67	1.54	—	1.54	—	16,337	16,337	0.66	0.13	—	16,393
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm ent	8.37	7.00	54.5	72.6	0.16	1.67	—	1.67	1.54	—	1.54	—	16,337	16,337	0.66	0.13	—	16,393
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	6.00	5.01	39.1	52.0	0.12	1.20	—	1.20	1.10	—	1.10	—	11,701	11,701	0.47	0.09	—	11,742
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.09	0.91	7.13	9.49	0.02	0.22	—	0.22	0.20	—	0.20	—	1,937	1,937	0.08	0.02	—	1,944
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.46	0.29	3.62	0.00	0.00	0.75	0.75	0.00	0.17	0.17	—	713	713	0.02	0.03	2.61	725
Vendor	0.14	0.07	2.45	1.11	0.01	0.02	0.44	0.47	0.01	0.12	0.13	—	1,665	1,665	0.06	0.24	3.39	1,740
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.46	0.33	3.72	0.00	0.00	0.75	0.75	0.00	0.17	0.17	—	698	698	0.03	0.03	0.07	709
Vendor	0.13	0.07	2.53	1.15	0.01	0.02	0.44	0.47	0.01	0.12	0.13	—	1,666	1,666	0.06	0.24	0.09	1,739
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.33	0.23	2.58	0.00	0.00	0.53	0.53	0.00	0.12	0.12	—	500	500	0.02	0.02	0.81	509
Vendor	0.10	0.05	1.81	0.81	0.01	0.02	0.31	0.33	0.01	0.09	0.10	—	1,193	1,193	0.04	0.17	1.05	1,246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.04	0.47	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	82.9	82.9	< 0.005	< 0.005	0.13	84.3
Vendor	0.02	0.01	0.33	0.15	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	197	197	0.01	0.03	0.17	206
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2029) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	8.11	6.78	52.4	72.1	0.16	1.53	—	1.53	1.41	—	1.41	—	16,336	16,336	0.66	0.13	—	16,392
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	8.11	6.78	52.4	72.1	0.16	1.53	—	1.53	1.41	—	1.41	—	16,336	16,336	0.66	0.13	—	16,392
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	5.79	4.84	37.4	51.5	0.12	1.09	—	1.09	1.00	—	1.00	—	11,669	11,669	0.47	0.09	—	11,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	1.06	0.88	6.83	9.40	0.02	0.20	—	0.20	0.18	—	0.18	—	1,932	1,932	0.08	0.02	—	1,939
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.45	0.27	3.39	0.00	0.00	0.75	0.75	0.00	0.17	0.17	—	700	700	0.02	0.03	2.38	712
Vendor	0.13	0.07	2.34	1.06	0.01	0.02	0.44	0.47	0.01	0.12	0.13	—	1,618	1,618	0.05	0.24	3.01	1,693
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.45	0.30	3.48	0.00	0.00	0.75	0.75	0.00	0.17	0.17	—	686	686	0.02	0.03	0.06	697
Vendor	0.13	0.06	2.42	1.10	0.01	0.02	0.44	0.47	0.01	0.12	0.13	—	1,620	1,620	0.05	0.24	0.08	1,692
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.32	0.21	2.41	0.00	0.00	0.53	0.53	0.00	0.12	0.12	—	490	490	0.02	0.02	0.73	499
Vendor	0.09	0.05	1.73	0.77	0.01	0.02	0.31	0.33	0.01	0.09	0.10	—	1,156	1,156	0.04	0.17	0.93	1,209
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.06	0.04	0.44	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	81.2	81.2	< 0.005	< 0.005	0.12	82.6
Vendor	0.02	0.01	0.32	0.14	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	191	191	0.01	0.03	0.15	200
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2030) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	7.90	6.60	51.2	71.9	0.16	1.45	—	1.45	1.33	—	1.33	—	16,336	16,336	0.66	0.13	—	16,392
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	7.90	6.60	51.2	71.9	0.16	1.45	—	1.45	1.33	—	1.33	—	16,336	16,336	0.66	0.13	—	16,392
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.33	1.95	15.1	21.2	0.05	0.43	—	0.43	0.39	—	0.39	—	4,827	4,827	0.20	0.04	—	4,844
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	0.36	2.76	3.88	0.01	0.08	—	0.08	0.07	—	0.07	—	799	799	0.03	0.01	—	802
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.43	0.24	3.17	0.00	0.00	0.75	0.75	0.00	0.17	0.17	—	688	688	0.02	0.03	2.17	700
Vendor	0.12	0.07	2.24	1.01	0.01	0.01	0.44	0.46	0.01	0.12	0.13	—	1,568	1,568	0.05	0.23	2.62	1,639
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.40	0.27	3.26	0.00	0.00	0.75	0.75	0.00	0.17	0.17	—	674	674	0.02	0.03	0.06	685
Vendor	0.11	0.06	2.31	1.05	0.01	0.01	0.44	0.46	0.01	0.12	0.13	—	1,570	1,570	0.05	0.23	0.07	1,638
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.08	0.93	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	199	199	0.01	0.01	0.28	203
Vendor	0.03	0.02	0.68	0.30	< 0.005	< 0.005	0.13	0.13	< 0.005	0.04	0.04	—	464	464	0.01	0.07	0.34	484
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	33.0	33.0	< 0.005	< 0.005	0.05	33.5
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	76.7	76.7	< 0.005	0.01	0.06	80.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2026	6/30/2026	5.00	129	—
Grading	Grading	7/1/2026	9/30/2026	5.00	66.0	—
Building Construction	Building Construction	10/1/2026	5/31/2030	5.00	957	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Graders	Diesel	Average	4.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	4.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Site Preparation	Off-Highway Trucks	Diesel	Average	4.00	8.00	376	0.38
Site Preparation	Generator Sets	Diesel	Average	4.00	8.00	14.0	0.74
Grading	Graders	Diesel	Average	4.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	4.00	8.00	367	0.40

Grading	Tractors/Loaders/Back hoes	Diesel	Average	8.00	8.00	84.0	0.37
Grading	Off-Highway Trucks	Diesel	Average	4.00	8.00	376	0.38
Grading	Generator Sets	Diesel	Average	4.00	8.00	14.0	0.74
Grading	Scrapers	Diesel	Average	4.00	8.00	423	0.48
Building Construction	Cranes	Diesel	Average	4.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	4.00	8.00	82.0	0.20
Building Construction	Welders	Diesel	Average	12.0	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Building Construction	Trenchers	Diesel	Average	4.00	8.00	40.0	0.50
Building Construction	Bore/Drill Rigs	Diesel	Average	4.00	8.00	83.0	0.50
Building Construction	Off-Highway Trucks	Diesel	Average	4.00	8.00	376	0.38
Building Construction	Generator Sets	Diesel	Average	4.00	8.00	14.0	0.74

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	100	8.80	LDA,LDT1,LDT2
Site Preparation	Vendor	12.0	5.30	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	120	8.80	LDA,LDT1,LDT2
Grading	Vendor	12.0	5.30	HHDT,MHDT
Grading	Hauling	50.0	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

Building Construction	—	—	—	—
Building Construction	Worker	120	8.80	LDA,LDT1,LDT2
Building Construction	Vendor	100	5.30	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
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5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	516	0.00	—
Grading	—	825,000	43.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
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Other Non-Asphalt Surfaces	600	0%
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5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005
2028	0.00	532	0.03	< 0.005
2029	0.00	532	0.03	< 0.005
2030	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	6.89	annual days of extreme heat
Extreme Precipitation	6.85	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

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

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

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

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

6.2. Initial Climate Risk Scores

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

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

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

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

6.3. Adjusted Climate Risk Scores

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

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

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

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8

AQ-PM	14.6
AQ-DPM	57.9
Drinking Water	17.3
Lead Risk Housing	36.0
Pesticides	0.00
Toxic Releases	10.6
Traffic	25.1
Effect Indicators	—
CleanUp Sites	92.6
Groundwater	99.8
Haz Waste Facilities/Generators	89.6
Impaired Water Bodies	66.7
Solid Waste	96.3
Sensitive Population	—
Asthma	50.6
Cardio-vascular	29.9
Low Birth Weights	76.6
Socioeconomic Factor Indicators	—
Education	56.7
Housing	42.8
Linguistic	62.2
Poverty	65.4
Unemployment	70.9

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—

Above Poverty	30.30925189
Employed	38.86821506
Median HI	14.20505582
Education	—
Bachelor's or higher	65.18670602
High school enrollment	100
Preschool enrollment	20.53124599
Transportation	—
Auto Access	3.079686898
Active commuting	95.36763762
Social	—
2-parent households	4.914667009
Voting	77.24881304
Neighborhood	—
Alcohol availability	32.68317721
Park access	81.35506224
Retail density	98.57564481
Supermarket access	94.25125112
Tree canopy	37.67483639
Housing	—
Homeownership	4.093417169
Housing habitability	10.95855255
Low-inc homeowner severe housing cost burden	14.65417683
Low-inc renter severe housing cost burden	51.31528295
Uncrowded housing	36.04516874
Health Outcomes	—
Insured adults	39.07352752
Arthritis	14.6

Asthma ER Admissions	43.6
High Blood Pressure	15.9
Cancer (excluding skin)	24.3
Asthma	23.6
Coronary Heart Disease	8.3
Chronic Obstructive Pulmonary Disease	14.4
Diagnosed Diabetes	31.9
Life Expectancy at Birth	37.7
Cognitively Disabled	12.5
Physically Disabled	13.7
Heart Attack ER Admissions	85.2
Mental Health Not Good	35.7
Chronic Kidney Disease	10.6
Obesity	38.6
Pedestrian Injuries	99.7
Physical Health Not Good	30.9
Stroke	15.1
Health Risk Behaviors	—
Binge Drinking	63.5
Current Smoker	38.5
No Leisure Time for Physical Activity	42.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	49.4
Children	33.8
Elderly	23.2
English Speaking	41.7
Foreign-born	42.4

Outdoor Workers	54.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	36.8
Traffic Density	35.3
Traffic Access	0.0
Other Indices	—
Hardship	70.8
Other Decision Support	—
2016 Voting	69.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	62.0
Healthy Places Index Score for Project Location (b)	38.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	upper bound of 5 acre project for Tier 1 and Tier 2
Construction: Construction Phases	Project phase assumptions based on similarly sized solar project schedules. See project assumptions for more details
Construction: Off-Road Equipment	Project construction equipment is based on solar projects of similar size. See project assumptions for more details
Construction: Trips and VMT	Trip generation is based on solar projects of similar size. See project assumptions for more details
Construction: Dust From Material Movement	See project assumptions for conservative material export for grading phase

Appendix C

Biological Resources

SPECIAL STATUS PLANT POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CRPR ¹	Preferred Habitat	Potential to Occur within the Project Area
Abrams' oxytheca <i>Acanthoscyphus parishii</i> var. <i>abramsii</i>	None	None	1B.2	Chaparral (sandy, shale). Elevation range: 3750 - 6750 feet.	<i>Low to moderate.</i> Of the 4 observations of this species in the project area, the most recent CNDDDB observation of this species was recorded in 1976.
Hoover's bent grass <i>Agrostis hooveri</i>	None	None	1B.2	Closed-cone coniferous forest, chaparral, cismontane woodland, valley and foothill grassland. Elevation range: 20 - 2000 feet.	<i>High.</i> There are 12 observations of this species in the CNDDDB record. The most recent observation of this species was recorded in 2013.
Mt. Pinos onion <i>Allium howellii</i> var. <i>clokeyi</i>	None	None	1B.3	Great Basin scrub, meadows and seeps (edges), pinyon and juniper woodland. Elevation range: 4265 - 6070 feet.	<i>Low to moderate.</i> Of the 2 observations of this species in the project area, the most recent CNDDDB observation of this species was recorded in 1996.
Santa Ynez groundstar <i>Ancistrocarphus keilii</i>	None	None	1B.1	Chaparral, cismontane woodland. Sandy soils. Elevation range: 130 - 425 feet.	<i>Low to moderate.</i> Of the 2 observations of this species in the project area, the most recent CNDDDB observation of this species was recorded in 1995.
aphanisma <i>Aphanisma blitoides</i>	None	None	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. Elevation range: 5 – 1,000 feet.	<i>Low to moderate.</i> Of the 2 occurrences of this species in the project area, the most recent was recorded in 1998.
Eastwood's brittle-leaf manzanita <i>Arctostaphylos crustacea</i> ssp. <i>eastwoodiana</i>	None	None	1B.1	Chaparral (maritime, sandy). In maritime chaparral on sandy soils, in the La Purisima Ridge, Burton Mesa, and Point Sal areas. Elevation range: 295 - 1200 feet.	<i>Low.</i> There are 3 observations of this species in the CNDDDB record. The most recent observation of this species was recorded in 1989.
San Gabriel manzanita <i>Arctostaphylos glandulosa</i> ssp. <i>gabrielensis</i>	None	None	1B.2	Chaparral (rocky). Rocky outcrops; can be dominant shrub where it occurs. Elevation range: 1950 - 4920 feet.	<i>Low to moderate.</i> There are 5 known occurrences of this species within the project area, all of which were recorded in 1992.
La Purisima manzanita <i>Arctostaphylos purissima</i>	None	None	1B.1	Chaparral (sandy), coastal scrub. Sandstone outcrops, sandy soil. Elevation range: 195 - 1280 feet.	<i>High.</i> There are 41 known occurrences of this species within the project area. Of these, the most recent was recorded in 2016.
Refugio manzanita <i>Arctostaphylos refugioensis</i>	None	None	1B.2	Chaparral (sandstone). Elevation range: 900 - 2690 feet.	<i>High.</i> There are 27 known occurrences of this species within the project area. Of these, the most recent was recorded in 2016.
sand mesa manzanita <i>Arctostaphylos rudis</i>	None	None	1B.1	Chaparral (maritime), coastal scrub. On sandy soils in Lompoc/Nipomo area. Elevation range: 80 - 1055 feet.	<i>High.</i> There are 24 known occurrences of this species within the project area. Of these, the most recent was recorded in 2013.
Miles' milk-vetch <i>Astragalus didymocarpus</i> var. <i>milesianus</i>	None	None	1B.2	Coastal scrub (clay). Elevation range: 65 - 295 feet.	<i>Low.</i> There are 5 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 1961.

SPECIAL STATUS PLANT POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CRPR ¹	Preferred Habitat	Potential to Occur within the Project Area
Coulter's saltbush <i>Atriplex coulteri</i>	None	None	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Ocean bluffs, ridgetops, as well as alkaline low places. Alkaline or clay soils. Elevation range: 10 - 1510 feet.	<i>Low to moderate.</i> There are 5 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2003.
south coast saltscale <i>Atriplex pacifica</i>	None	None	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, playas. Alkali soils. Elevation range: 0 - 460 feet.	<i>Low.</i> There is 1 known occurrences of this species within the project area that was recorded in 1957.
Davidson's saltscale <i>Atriplex serenana</i> var. <i>davidsonii</i>	None	None	1B.2	Coastal bluff scrub, coastal scrub. Alkaline soils. Elevation range: 35 - 655 feet.	<i>Moderate.</i> There are 4 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2009.
late-flowered mariposa-lily <i>Calochortus fimbriatus</i>	None	None	1B.3	Chaparral, cismontane woodland, riparian woodland. Dry, open coastal woodland, chaparral; on serpentine. Elevation range: 900 - 6250 feet.	<i>High.</i> There are 49 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2017.
Palmer's mariposa-lily <i>Calochortus palmeri</i> var. <i>palmeri</i>	None	None	1B.2	Chaparral, lower montane coniferous forest, meadows and seeps. Vernal moist places in yellow-pine forest, chaparral. Elevation range: 2330 - 7840 feet.	<i>Moderate.</i> There are 5 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2013.
La Panza mariposa-lily <i>Calochortus simulans</i>	None	None	1B.3	Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Decomposed granite, or sometimes on serpentine. Elevation range: 1065 - 3775 feet.	<i>Moderate to high.</i> There are 3 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2019.
Santa Barbara morning-glory <i>Calystegia sepium</i> ssp. <i>binghamiae</i>	None	None	1A	Marshes and swamps (coastal). Elevation range: 15 - 15 feet.	<i>Low.</i> There is only 1 known occurrence of this species within the project area that was recorded in 1886. This occurrence is now listed as possibly extirpated.
Santa Barbara jewelflower <i>Caulanthus amplexicaulis</i> var. <i>barbarae</i>	None	None	1B.1	Chaparral, cismontane woodland, closed-cone coniferous forest. Elevation range: 1540 - 4005 feet.	<i>Moderate to high.</i> There are 11 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2013.
California jewelflower <i>Caulanthus californicus</i>	FE	SE	1B.1	Chenopod scrub, pinyon and juniper woodland, valley and foothill grassland. Elevation range: 200 - 3280 feet.	<i>Moderate to high.</i> There are 8 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2018.
Lemmon's jewelflower <i>Caulanthus lemmonii</i>	None	None	1B.2	Chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon-juniper woodland. Elevation range: 260 - 5185 feet.	<i>Moderate to high.</i> There are 6 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2018.
Santa Barbara ceanothus <i>Ceanothus impressus</i> var. <i>impressus</i>	None	None	1B.2	Chaparral. Sandy. Elevation range: 130 - 1540 feet.	<i>High.</i> There are 37 known occurrences of these species within the project area. Of these, the most recent occurrence was recorded in 2019.

SPECIAL STATUS PLANT POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CRPR ¹	Preferred Habitat	Potential to Occur within the Project Area
southern tarplant <i>Centromadia parryi</i> ssp. <i>australis</i>	None	None	1B.1	Marshes and swamps (margins), valley and foothill grassland (vernally mesic), vernal pools. Often in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass. Elevation range: 0 - 1575 feet.	<i>Moderate to high.</i> There are 14 known occurrences of these species within the project area. Of these, the most recent occurrence was recorded in 2013.
coastal goosefoot <i>Chenopodium littoreum</i>	None	None	1B.2	Coastal dunes. Generally on sandy soils, and on dunes. Elevation range: 35 - 100 feet.	<i>Low to moderate.</i> There are 3 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 1996.
salt marsh bird's-beak <i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	FE	SE	1B.2	Coastal dunes, marshes and swamps (coastal salt). Limited to the higher zones of salt marsh habitat. Elevation range: 0 - 100 feet.	<i>Moderate.</i> There are 2 known occurrences of this species within the project area. These occurrences were recorded in 2017 and 2018.
Blakley's spineflower <i>Chorizanthe blakleyi</i>	None	None	1B.3	Chaparral, pinyon and juniper woodland. Elevation range: 1970 - 5250 feet	<i>Moderate to high.</i> There are 11 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2014.
Bolander's water-hemlock <i>Cicuta maculata</i> var. <i>bolanderi</i>	None	None	2B.1	Marshes and swamps (brackish, coastal, freshwater). Elevation range: 0 - 655 feet.	<i>Low.</i> There is only 1 known occurrence of this species within the project area, which was recorded in 2008.
compact cobwebby thistle <i>Cirsium occidentale</i> var. <i>compactum</i>	None	None	1B.2	Chaparral, coastal dunes, coastal prairie, coastal scrub. On dunes and on clay in chaparral; also in grassland. Elevation range: 15 - 490 feet.	<i>Low.</i> There is only 1 known occurrences of this species within the project area which was recorded in 1962.
surf thistle <i>Cirsium rothophilum</i>	None	ST	1B.2	Coastal bluff scrub, coastal dunes. Elevation range: 10 - 195 feet.	<i>Moderate.</i> There are 16 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2004.
La Graciosa thistle <i>Cirsium scariosum</i> var. <i>loncholepis</i>	FE	ST	1B.1	Cismontane woodland, coastal dunes, coastal scrub, marshes and swamps (brackish), valley and foothill grassland. Elevation range: 15 - 720 feet.	<i>High.</i> There are 7 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2019. Critical habitat for this species also occurs within the western portion of the project area.
California saw-grass <i>Cladium californicum</i>	None	None	2B.2	Marshes and swamps (alkaline, freshwater), meadows and seeps. Elevation range: 195 - 5250 feet.	<i>Moderate.</i> There are 2 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2005.
seaside bird's-beak <i>Cordylanthus rigidus</i> ssp. <i>littoralis</i>	None	SE	1B.1	Chaparral (maritime), cismontane woodland, closed-cone coniferous forest, coastal dunes, coastal scrub. Disturbed areas (often), sandy. Elevation range: 0 - 1690 feet.	<i>High.</i> There are 25 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2010.

SPECIAL STATUS PLANT POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CRPR ¹	Preferred Habitat	Potential to Occur within the Project Area
Gaviota tarplant <i>Deinandra increscens</i> ssp. <i>villosa</i>	FE	SE	1B.1	Coastal bluff scrub, coastal scrub, valley and foothill grassland. Elevation range: 65 - 1410 feet.	<i>High</i> . There are 21 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2020. Critical habitat for this species also occurs within the southwestern portion of the project area.
dune larkspur <i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	None	None	1B.2	Chaparral (maritime), coastal dunes. Elevation range: 0 - 655 feet.	<i>Moderate to high</i> . There are 13 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2010.
recurved larkspur <i>Delphinium recurvatum</i>	None	None	1B.2	Chenopod scrub, cismontane woodland, valley and foothill grassland. On alkaline soils; often in valley saltbush or valley chenopod scrub. Elevation range: 10 - 2590 feet.	<i>Low to moderate</i> . Only 1 known occurrence of this species within the project area which was recorded in 2017.
umbrella larkspur <i>Delphinium umbraculorum</i>	None	None	1B.3	Chaparral, cismontane woodland. Mesic sites. Elevation range: 1310 - 5250 feet.	<i>High</i> . There are 43 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2019.
silverskin lichen <i>Dermatocarpon meiophyllizum</i>	None	None	2B.3	Coastal prairie, lower montane coniferous forest, north coast coniferous forest, subalpine coniferous forest, upper montane coniferous forest. Preferred habitat is undisturbed, exposed streams with large rocks or bedrock at high elevations, but it is also found in cold, deep canyons at lower elevations. Elevation range: 970 - 11465 feet.	<i>Low</i> . Only 1 known occurrence of this species within the project area which was recorded in 1992.
Vandenberg monkeyflower <i>Diplacus vandenbergensis</i>	FE	None	1B.1	Chaparral, cismontane woodland, coastal dunes. Disturbed areas (often), sandy. Elevation range: 195 - 395 feet.	<i>High</i> . There are 17 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2019. Critical habitat for this species also occurs within the western portion of the project area.
beach spectaclepod <i>Dithyrea maritima</i>	None	ST	1B.1	Coastal dunes, coastal scrub (sandy). Elevation range: 10 - 165 feet.	<i>Moderate to high</i> . There are 8 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2016.
Blochman's dudleya <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	None	None	1B.1	Chaparral, coastal bluff scrub, coastal scrub, valley and foothill grassland. Open, rocky slopes; often in shallow clays over serpentine or in rocky areas with little soil. Elevation range: 15 - 1475 feet.	<i>Moderate</i> . There are 8 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2000.
Kern mallow <i>Eremalche parryi</i> ssp. <i>kernensis</i>	FE	None	1B.2	Chenopod scrub, pinyon and juniper woodland, valley and foothill grassland. On dry, open, sandy to clay soils; usually within valley saltbush scrub; often at edge of balds. Elevation range: 230 - 4230 feet.	<i>Moderate to high</i> . There are 4 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2019.

SPECIAL STATUS PLANT POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CRPR ¹	Preferred Habitat	Potential to Occur within the Project Area
Blochman's leafy daisy <i>Erigeron blochmaniae</i>	None	None	1B.2	Coastal dunes, coastal scrub. Elevation range: 10 - 150 feet.	<i>Moderate</i> . There are 12 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2011.
Lompoc yerba santa <i>Eriodictyon capitatum</i>	FE	SR	1B.2	Chaparral (maritime), closed-cone coniferous forest, coastal bluff scrub. Sandy soils on terraces. Elevation range: 130 - 2955 feet.	<i>High</i> . There are 11 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2019. Critical habitat for this species also occurs within the western portion of the project area.
Fort Tejon woolly sunflower <i>Eriophyllum lanatum</i> var. <i>hallii</i>	None	None	1B.1	Chaparral, cismontane woodland. Often on slopes in loamy soils. Elevation range: 3495 - 6560 feet.	<i>Low to moderate</i> . There are 2 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2003.
Ojai fritillary <i>Fritillaria ojaiensis</i>	None	None	1B.2	Broadleafed upland forest (mesic), chaparral, cismontane woodland, lower montane coniferous forest. Rocky sites. Sometimes on serpentine; sometimes along roadsides. Elevation range: 740 - 3275 feet.	<i>Moderate to high</i> . There are 26 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2017.
mesa horkelia <i>Horkelia cuneata</i> var. <i>puberula</i>	None	None	1B.1	Chaparral (maritime), cismontane woodland, coastal scrub. Sandy or gravelly sites. Elevation range: 230 - 2660 feet.	<i>High</i> . There are 26 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2013.
Kellogg's horkelia <i>Horkelia cuneata</i> var. <i>sericea</i>	None	None	1B.1	Chaparral (maritime), closed-cone coniferous forest, coastal dunes, coastal scrub. Old dunes, coastal sandhills; openings. Sandy or gravelly soils. Elevation range: 35 - 655 feet.	<i>Moderate</i> . There are 9 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2012.
Santa Lucia dwarf rush <i>Juncus luciensis</i>	None	None	1B.2	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, vernal pools. Ephemeral drainages, wet meadow habitats and streamsides. Elevation range: 985 - 6695 feet.	<i>Low</i> . There are 3 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 1956.
Contra Costa goldfields <i>Lasthenia conjugens</i>	FE	None	1B.1	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools. Swales, low depressions, in open grassy areas. Elevation range: 0 - 1540 feet.	<i>Not expected</i> . There is only 1 known occurrence of this species in the project area from 1950 which has since been extirpated.
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	None	None	1B.1	Marshes and swamps (coastal salt), playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. Elevation range: 5 - 4005 feet.	<i>Moderate</i> . There are 5 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2013.
beach layia <i>Layia carnosa</i>	FT	SE	1B.1	Coastal dunes, coastal scrub (sandy). On sparsely vegetated, semi-stabilized dunes, usually behind foredunes. Elevation range: 0 - 195 feet.	<i>Moderate to high</i> . There are 4 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2017.

SPECIAL STATUS PLANT POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CRPR ¹	Preferred Habitat	Potential to Occur within the Project Area
blushing layia <i>Layia erubescens</i>	None	None	1B.2	Coastal dunes, coastal scrub. Prefers loose, fine sand of stabilized dunes and sandhills. Elevation range: 35 - 805 feet.	<i>High</i> . There are 27 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2023.
pale-yellow layia <i>Layia heterotricha</i>	None	None	1B.1	Cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland. Alkaline or clay soils; open areas. Elevation range: 985 - 5595 feet.	<i>Moderate to high</i> . There are 14 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2016.
Santa Barbara honeysuckle <i>Lonicera subspicata</i> var. <i>subspicata</i>	None	None	1B.2	Chaparral, cismontane woodland, coastal scrub. Elevation range: 35 - 3280 feet.	<i>Moderate to high</i> . There are 29 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2016.
showy golden madia <i>Madia radiata</i>	None	None	1B.1	Cismontane woodland, valley and foothill grassland. Mostly on adobe clay in grassland or among shrubs. Elevation range: 80 - 3985 feet.	<i>Low</i> . There is 1 known occurrence of this species within the project area. The date that this occurrence was recorded is unknown.
Alice's lovely bushmallow <i>Malacothamnus eastwoodiae</i>	None	None	1B.1	Chaparral (maritime), coastal scrub, riparian woodland. Found in Burton Mesa maritime chaparral; many plants found on the edge between chaparral and more open areas. Elevation range: 80 - 425 feet.	<i>Moderate to high</i> . There are 5 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2021.
slender bushmallow <i>Malacothamnus jonesii</i> var. <i>gracilis</i>	None	None	1B.1	Chaparral. Dry, rocky slopes. Elevation range: 625 - 1885 feet.	<i>Low</i> . There is 1 known occurrence of this species within the project area. This occurrence was recorded in 1946.
Carmel Valley malacothrix <i>Malacothrix saxatilis</i> var. <i>arachnoidea</i>	None	None	1B.2	Chaparral (rocky), coastal scrub. Rock outcrops or steep rocky roadcuts. Elevation range: 80 - 3400 feet.	<i>Low</i> . There is 1 known occurrence of this species within the project area. This occurrence was recorded in 1982.
southwestern mountain monardella <i>Monardella australis</i> ssp. <i>occidentalis</i>	None	None	1B.1	Chaparral (montane), upper montane coniferous forest. Clay loam, rocky scree. Elevation range: 6200 - 7990 feet.	<i>Low</i> . There is 1 known occurrence of this species within the project area. This occurrence was recorded in the 1930s.
white-veined monardella <i>Monardella hypoleuca</i> ssp. <i>hypoleuca</i>	None	None	1B.3	Chaparral, cismontane woodland. Dry slopes. Elevation range: 165 - 5005 feet.	<i>Moderate</i> . There are 19 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2006.
southern curly-leaved monardella <i>Monardella sinuata</i> ssp. <i>sinuata</i>	None	None	1B.2	Chaparral, cismontane woodland, coastal dunes, coastal scrub (openings). Sandy soils. Elevation range: 0 - 985 feet.	<i>Moderate to high</i> . There are 26 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2012.
Point Arguello monardella <i>Monardella undulata</i> ssp. <i>arguelloensis</i>	None	None	1B.1	Coastal bluff scrub, coastal dunes (stabilized), coastal scrub. Sandy substrate. Elevation range: 165 - 490 feet.	<i>Low to moderate</i> . There is 1 known occurrence of this species within the project area which was recorded in 2012.

SPECIAL STATUS PLANT POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CRPR ¹	Preferred Habitat	Potential to Occur within the Project Area
crisp monardella <i>Monardella undulata</i> ssp. <i>crispa</i>	None	None	1B.2	Coastal dunes, coastal scrub. Often on the borders of open, sand areas, usually adjacent to typical backdune scrub vegetation. Elevation range: 35 - 395 feet.	<i>Moderate</i> . There are 18 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2013.
San Luis Obispo monardella <i>Monardella undulata</i> ssp. <i>undulata</i>	None	None	1B.2	Coastal dunes, coastal scrub (sandy). Stabilized sand of the immediate coast. Elevation range: 35 - 655 feet.	<i>Moderate</i> . There are 12 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2012.
San Joaquin woollythreads <i>Monolopia congdonii</i>	FE	None	1B.2	Chenopod scrub, valley and foothill grassland (sandy). Alkaline or loamy plains; sandy soils, often with grasses and within chenopod scrub. Elevation range: 195 - 2625 feet.	<i>Moderate</i> . There are 3 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2016.
aparejo grass <i>Muhlenbergia utilis</i>	None	None	2B.2	Chaparral, cismontane woodland, coastal scrub, marshes and swamps, meadows and seeps. Sometimes alkaline, sometimes serpentinite. Elevation range: 80 - 7630 feet.	<i>Low</i> . There is 1 known occurrence of this species within the project area. This occurrence was recorded in 1975.
Gambel's water cress <i>Nasturtium gambelii</i>	FE	ST	1B.1	Marshes and swamps (brackish, freshwater). At the margins of lakes and along streams, in or just above the water level. Elevation range: 15 – 1085 feet.	<i>Moderate</i> . There are 3 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2012.
Robbins' nemacladus <i>Nemacladus secundiflorus</i> var. <i>robbinsii</i>	None	None	1B.2	Chaparral, valley and foothill grassland. Dry, sandy or gravelly slopes. Openings. Elevation range: 1150 - 5580 feet.	<i>Low</i> . There is 1 known occurrence of this species within the project area which was recorded in 1929.
Sonoran maiden fern <i>Pelazoneuron puberulum</i> var. <i>sonorense</i>	None	None	2B.2	Meadows and seeps (seeps, streams). Elevation range: 165 - 2000 feet.	<i>Moderate</i> . There are 12 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2015.
Mexican earthmoss <i>Pleuridium mexicanum</i>	None	None	2B.1	Chaparral, sandstone. Elevation range: 1445 - 1445 feet.	<i>Low to moderate</i> . There is 1 known occurrence of this species within the project area. This was recorded in 2006.
Nuttall's scrub oak <i>Quercus dumosa</i>	None	None	1B.1	Chaparral, closed-cone coniferous forest, coastal scrub. Generally on sandy soils near the coast; sometimes on clay loam. Elevation range: 50 - 1310 feet.	<i>Moderate</i> . There are 17 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2015.
black-flowered figwort <i>Scrophularia atrata</i>	None	None	1B.2	Chaparral, closed-cone coniferous forest, coastal dunes, coastal scrub, riparian scrub. Sand, diatomaceous shales, and soils derived from other parent material; around swales and in sand dunes. Elevation range: 35 - 1640 feet.	<i>High</i> . There are 51 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2016.

SPECIAL STATUS PLANT POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CRPR ¹	Preferred Habitat	Potential to Occur within the Project Area
chaparral ragwort <i>Senecio aphanactis</i>	None	None	2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Elevation range: 50 - 2625 feet.	<i>Low to moderate.</i> There are 4 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2006.
Parish's checkerbloom <i>Sidalcea hickmanii</i> ssp. <i>parishii</i>	None	SR	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. Disturbed burned or cleared areas on dry, rocky slopes, in fuel breaks and fire roads along the mountain summits. Elevation range: 3280 - 8200 feet.	<i>Moderate.</i> There are 10 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2018.
southern jewelflower <i>Streptanthus campestris</i>	None	None	1B.3	Chaparral, lower montane coniferous forest, pinyon and juniper woodland. Open, rocky areas. Elevation range: 2955 - 7545 feet.	<i>Low.</i> There is 1 known occurrence of this species within the project area. This was recorded in 1929.
estuary seablite <i>Suaeda esteroa</i>	None	None	1B.2	Marshes and swamps (coastal salt), in clay, silt, and sand substrates. Elevation range: 0 - 15 feet.	<i>Low.</i> There is 1 known occurrence of this species within the project area. This was recorded in 1979.
San Bernardino aster <i>Symphotrichum defoliatum</i>	None	None	1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, meadows and seeps, valley and foothill grassland (vernally mesic). Streambanks. Elevation range: 5 - 6695 feet.	<i>Low to moderate.</i> There is 1 known occurrence of this species within the project area. This was recorded in 1995.
Santa Ynez false lupine <i>Thermopsis macrophylla</i>	None	SR	1B.3	Chaparral (disturbed areas, granitic, sandy). In open areas such as fuel breaks, after burns; on sandstone. Elevation range: 1395 - 4595 feet.	<i>Moderate.</i> There are 8 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2011.

1. SENSITIVITY STATUS

Federal

FE Federally Endangered
 FT Federally Threatened
 FC Federal Candidate
 FPE Federally Proposed as Endangered
 FPT Federally Proposed as Threatened
 FPD Federally Proposed for Delisting

State

SE State Listed as Endangered
 ST State Listed as Threatened
 SCE State Candidate for Endangered
 SCT State Candidate for Threatened
 SR State Rare

Local**CRPR***California Rare Plant Ranks:*

California Rare Plant Rank 1A	Plants presumed extirpated in California and either rare or extinct elsewhere
California Rare Plant Rank 1B	Plants rare, threatened, or endangered in California and elsewhere
California Rare Plant Rank 2A	Plants presumed extirpated in California but common elsewhere
California Rare Plant Rank 2B	Plants rare, threatened, or endangered in California, but common elsewhere
California Rare Plant Rank 3	Plants about which more information is needed, a review list
California Rare Plant Rank 4	Plants of limited distribution, a watch list

Threat Code extensions and their meanings:

0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
 0.2-Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
 0.3-Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

SOURCES FOR PREFERRED HABITAT:

California Native Plant Society. 2025. CNPS Rare Plant Inventory. Available online at: <https://rareplants.cnps.org/>. Accessed March 25, 2025.

CDFW. 2025. California Natural Diversity Database (CNDDB). RareFind, Version 5.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Available online at: <https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data>. Accessed March 25, 2025.

SPECIAL STATUS WILDLIFE POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CDFW ¹	Preferred Habitat	Potential to Occur within Project Area
Invertebrates					
Crotch's bumble bee <i>Bombus crotchii</i>	None	SCE	None	Open grassland and scrub habitats that support potential nectar sources.	<i>High.</i> There are 21 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2020.
American bumble bee <i>Bombus pensylvanicus</i>	None	None	None	Coastal prairie, Great Basin grassland, Valley & foothill grassland. Long-tongued; forages on a wide variety of flowers including vetches (<i>Vicia</i>), clovers (<i>Trifolium</i>), thistles (<i>Cirsium</i>), sunflowers (<i>Helianthus</i>), etc. Nests above ground under long grass or underground. Queens overwinter in rotten wood or underground.	<i>Low to moderate.</i> There is 1 known occurrence of this species within the project area, which was recorded in 1991.
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	None	None	Limited to vernal pools in Oregon and California. Occasionally will be found in habitats other than vernal pools, such as artificial pools created by roadside ditches.	<i>High.</i> There are 9 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2017. Critical habitat for this species also occurs within the central portion of the project area.
monarch - California overwintering population <i>Danaus plexippus plexippus</i> pop. 1	FPT	None	None	Wintering sites in California are associated with wind-protected groves of large trees (primarily eucalyptus or pine [<i>Pinus</i> spp.]) with nectar and water sources nearby that are generally near the coast.	<i>High.</i> There are 116 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2023.
Kern primrose sphinx moth <i>Euproserpinus euterpe</i>	FT	None	None	Valley & foothill grassland. Found in the Walker Basin, Kern County, and in the Carrizo Plain and Cuyama Valley.	<i>Moderate.</i> There are 5 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2015.
Fish					
tidewater goby <i>Eucyclogobius newberryi</i>	FE	None	SSC	Found in shallow brackish water habitats, lagoons, and lower stream reaches along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Require fairly still but not stagnant water and high oxygen levels.	<i>High.</i> There are 30 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2016. Critical habitat for this species also occurs within the northwestern and southern portions of the project area.
unarmored threespine stickleback <i>Gasterosteus aculeatus williamsoni</i>	FE	SE	FP	South coast flowing waters, Weedy pools, backwaters, and among emergent vegetation at the stream edge in small Southern California streams. Cool (<24 C), clear water with abundant vegetation.	<i>Moderate.</i> There are 3 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2010.
arroyo chub <i>Gila orcuttii</i>	None	None	SSC	Los Angeles Basin south coastal streams. Prefers slow water stream sections with muddy or sandy bottoms. Feeds on aquatic vegetation, insects, and associated invertebrates.	<i>Moderate.</i> There is 1 known occurrence of this species within the project area, which was recorded in 1996. Observations within the project area are documented in iNaturalist.

SPECIAL STATUS WILDLIFE POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CDFW ¹	Preferred Habitat	Potential to Occur within Project Area
steelhead - southern California DPS <i>Oncorhynchus mykiss</i> <i>irideus</i> pop. 10	FE	SCE	None	South coast flowing waters with variable temperatures. Found in streams and rivers with at least 7 inches minimum depth.	<i>Moderate.</i> There are 6 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2014.
Amphibians					
California tiger salamander - Santa Barbara County DPS <i>Ambystoma californiense</i> pop. 2	FE	ST	WL	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats.	<i>High.</i> There are 30 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2017. Critical habitat for this species also occurs within the western portion of the project area.
arroyo toad <i>Anaxyrus californicus</i>	FE	None	SSC	Gravelly or sandy washes, stream and river banks, and arroyos where flow rates are great enough to keep silt and clay suspended. Found in desert wash, riparian scrub, riparian woodland, south coast flowing waters, and south coast standing waters.	<i>High.</i> There are 5 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2011. Species observations limited to Sisquoc and Santa Ynez rivers. Critical habitat for this species also occurs within the central portion of the project area.
foothill yellow-legged frog - south coast DPS <i>Rana boylei</i> pop. 6	FE	SE	None	In California, species were found in most of the northwest and south throughout the foothill regions of the coast range (south to the San Gabriel River system, Los Angeles County) and along the western slopes of the Sierra Nevada south to Kern County, and through the Tehachapis and San Gabriel Mountains in southern California. Valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, mixed chaparral and wet meadows.	<i>Moderate.</i> There are 7 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 1980.
California red-legged frog <i>Rana draytonii</i>	FT	None	SSC	Aquatic habitats including pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dune ponds and lagoons.	<i>High.</i> There are 131 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2022. Critical habitat for this species also occurs throughout the project area.
western spadefoot <i>Spea hammondi</i>	FPT	None	SSC	Mixed woodland, grasslands, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Prefers washes and other sandy areas with patches of brush and rocks.	<i>High.</i> There are 120 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2019.
Coast Range newt <i>Taricha torosa</i>	None	None	SSC	Leave their aquatic habitat within a few weeks of breeding, and estivate terrestrially during the dry summer, residing in moist habitats under woodland debris, animal burrows, or in rock crevices.	<i>High.</i> There are 17 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2015.

SPECIAL STATUS WILDLIFE POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CDFW ¹	Preferred Habitat	Potential to Occur within Project Area
Reptiles					
Northern California legless lizard <i>Anniella pulchra</i>	None	None	SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	<i>High.</i> There are 108 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2021.
California legless lizard <i>Anniella</i> spp.	None	None	SSC	Occurs in sparsely vegetated areas of beach/coastal dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	<i>High.</i> There are 5 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 1983. Observations within the project area are documented in iNaturalist.
California glossy snake <i>Arizona elegans occidentalis</i>	None	None	SSC	Inhabits arid scrub, rocky washes, and grasslands, and chaparral habitats.	<i>High.</i> There are 17 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2015. All occurrences of this species have been located along Hwy 166.
coastal whiptail <i>Aspidoscelis tigris stejnegeri</i>	None	None	SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	<i>Moderate.</i> There is 1 known occurrence of this species within the project area, which was recorded in 2013. Observations within the project area are documented in iNaturalist.
southwestern pond turtle <i>Actinemys pallida</i>	FPT	None	SSC	Known to occur in slow-moving permanent or intermittent streams, ponds, small lakes, rivers, streams, marshes, irrigation ditches with abundant vegetation, reservoirs with emergent basking sites, and either rocky or muddy bottoms.	<i>High.</i> There are 99 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2022.
blunt-nosed leopard lizard <i>Gambelia sila</i>	FE	SE	FP	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief.	<i>High.</i> There are 9 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2007.
coast horned lizard <i>Phrynosoma blainvillii</i>	None	None	SSC	Prefers sandy riparian and sage scrub habitats but also occurs in valley-foothill hardwood, conifer, pine-cypress, juniper and annual grassland habitats	<i>High.</i> There are 27 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2017.
coast patch-nosed snake <i>Salvadora hexalepis virgulata</i>	None	None	SSC	Known to inhabit semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains with sandy soils and leaf litter.	<i>Moderate to high.</i> There are 8 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2004.
two-striped gartersnake <i>Thamnophis hammondi</i>	None	None	SSC	Habitat includes marsh and swamp, riparian scrub, riparian woodland, and wetland.	<i>High.</i> There are 24 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2016.

SPECIAL STATUS WILDLIFE POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CDFW ¹	Preferred Habitat	Potential to Occur within Project Area
Birds					
Cooper's hawk <i>Accipiter cooperii</i>	None	None	WL	Inhabits cismontane woodland, riparian forest, riparian woodland, upper montane coniferous forest, or other forest habitats near water.	<i>High.</i> There are 5 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2009. Observations within the project area are documented in eBird.
tricolored blackbird <i>Agelaius tricolor</i>	BCC	ST	SSC	Known to occur in freshwater marsh, marsh, swap, and wetland.	<i>High.</i> There are 12 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2014. Observations within the project area are documented in eBird.
southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	None	None	WL	Known to frequent relatively steep, often rocky hillsides with grass and forb species. Resident in Southern California coastal sage scrub and sparse mixed chaparral.	<i>High.</i> There are 4 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 2013. Observations within the project area are documented in eBird.
grasshopper sparrow <i>Ammodramus savannarum</i>	None	None	SSC	Known to occur in dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs.	<i>Moderate.</i> There are 2 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 2008. Observations within the project area are documented in eBird.
golden eagle <i>Aquila chrysaetos</i>	BGEPA	None	FP, WL	Broadleaved upland forest, cismontane woodland, coastal prairie, great basin grassland, great basin scrub, lower montane coniferous forest, pinon and juniper woodlands, upper montane coniferous forest, valley and foothill grassland. Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	<i>Moderate.</i> There are 2 known occurrences of this species within the project area. Of these, the most recent observation was recorded in 1974. Observations within the project area are documented in eBird.
Bell's sparrow <i>Artemisiospiza belli belli</i>	None	None	WL	Inhabits large, unfragmented blocks of coastal sage scrub, southern mixed chaparral habitats.	<i>Moderate.</i> There is 1 known occurrence of this species within the project area, which was recorded in 1994. Observations within the project area are documented in eBird.
short-eared owl <i>Asio flammeus</i>	BCC	None	SSC	Open country, usually with tall grass, in scattered regions around the Northern Hemisphere. Primarily a rare winter visitor in southern California, but recorded at Mystic Lake in the San Jacinto Valley, Riverside County, in summer 1992 and Harper Dry Lake, San Bernardino County, in summer 1993.	<i>Moderate.</i> There is 1 known occurrence of this species within the project area, which was recorded in 2017. Observations within the project area are documented in eBird.

SPECIAL STATUS WILDLIFE POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CDFW ¹	Preferred Habitat	Potential to Occur within Project Area
burrowing owl <i>Athene cunicularia</i>	BCC	SCE	SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation.	<i>Moderate to high.</i> There are 4 known occurrences of this species within the project area, the most recent of which was recorded in 2009. Observations within the project area are documented in eBird.
ferruginous hawk <i>Buteo regalis</i>	None	None	WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats.	<i>Moderate to high.</i> There are 2 known occurrences of this species within the project area, the most recent of which was recorded in 1992. Observations within the project area are documented in eBird.
Swainson's hawk <i>Buteo swainsoni</i>	None	ST	None	Found in Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland.	<i>Low.</i> There is 1 known occurrence of this species within the project area, which was recorded in 1896.
rhinoceros auklet <i>Cerorhinca monocerata</i>	None	None	WL	Found on off-shore islands and rocks along the California coast.	<i>Low.</i> There is 1 known occurrences of this species within the project area, the most recent of which was recorded in 1980.
western snowy plover <i>Charadrius nivosus nivosus</i>	FT	None	SSC	Found in Great Basin standing waters, sand shore, wetland. Sandy beaches, salt pond levees & shores of large alkali lakes.	<i>High.</i> There are 10 known occurrences of this species within the project area, the most recent of which was recorded in 2014. Critical habitat for this species also occurs within the northwestern portion of the project area.
yellow rail <i>Coturnicops noveboracensis</i>	BCC	None	SSC	Known to occur within freshwater marshlands, meadows, and seeps.	<i>Low.</i> There is 1 known occurrence of this species in the project area, which was recorded in 1996.
white-tailed kite <i>Elanus leucurus</i>	None	None	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	<i>High.</i> There are 4 known occurrences of this species within the project area, the most recent of which was recorded in 2009. Observations within the project area are documented in eBird.
southwestern willow flycatcher <i>Empidonax traillii extimus</i>	FE	SE	None	For nesting, species requires dense riparian habitats (cottonwood/willow and tamarisk vegetation) with microclimatic conditions dictated by the local surroundings.	<i>Moderate to high.</i> There are 5 known occurrences of this species within the project area. Of these, the most recent occurrence was recorded in 1995. Critical habitat for this species also occurs within the western portion of the project area. Observations within the project area are documented in eBird.
California horned lark <i>Eremophila alpestris actia</i>	None	None	WL	Found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above the treeline. During the winter, this species typically flocks in desert lowlands.	<i>High.</i> There are 2 known occurrences of this species within the project area, the most recent of which was recorded in 2015. Observations within the project area are documented in eBird.

SPECIAL STATUS WILDLIFE POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CDFW ¹	Preferred Habitat	Potential to Occur within Project Area
Prairie falcon <i>Falco mexicanus</i>	None	None	WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	<i>Moderate to high.</i> There are 7 known occurrences of this species within the project area, the most recent of which was recorded in 1981. Observations within the project area are documented in eBird.
American peregrine falcon <i>Falco peregrinus anatum</i>	Delisted	Delisted	None	Known to occur near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	<i>Moderate.</i> There are 5 known occurrences of this species within the project area, the most recent of which was recorded in 2016. Observations within the project area are documented in eBird.
California condor <i>Gymnogyps californianus</i>	FE	SE	FP	Scavenge for carrion in habitats ranging from Pacific beaches to mountain forests and meadows. They nest in caves on cliff faces in mountains up to 6,000 feet in elevation.	<i>Moderate.</i> There are 3 known occurrences of this species within the project area, the most recent of which was recorded in 1983. Observations within the project area are documented in eBird. Critical habitat for this species also occurs within the eastern portion of the project area.
bald eagle <i>Haliaeetus leucocephalus</i>	BGEPA, Delisted	SE	FP	Typically nest in forested areas adjacent to large bodies of water, staying away from heavily developed areas when possible. For perching, bald eagles prefer tall, mature coniferous or deciduous trees that afford a wide view of the surroundings.	<i>Moderate.</i> There is 1 known occurrence of this species within the project area, which was recorded in 1996. Observations within the project area are documented in eBird.
California black rail <i>Laterallus jamaicensis coturniculus</i>	None	ST	FP	Known to occur in brackish and freshwater marshes. Inhabits riparian thickets of willow and other brushy tangles near watercourses. Needs water depths of about 1 inch that does not fluctuate during the year and dense vegetation for nesting habitat.	<i>Low.</i> There is 1 known occurrence of this species within the project area, which was recorded in 1917.
double-crested cormorant <i>Nannopterum auritum</i>	None	None	WL	Colonial waterbirds that seek aquatic bodies large enough to support their fish diet, but can nest in clusters or trees near smaller lagoons or ponds.	<i>High.</i> There is 1 known occurrence of this species within the project area, the most recent of which was recorded in 2012. Observations within the project area are documented in eBird.
Belding's savannah sparrow <i>Passerculus sandwichensis beldingi</i>	BCC	SE	None	Inhabits coastal salt marshes, from Santa Barbara south through San Diego County. Nests in Salicornia on and about margins of tidal flats.	<i>Moderate.</i> There are 4 known occurrences of this species within the project area, the most recent of which was recorded in 2016. Observations within the project area are documented in eBird.
California brown pelican <i>Pelecanus occidentalis californicus</i>	Delisted	Delisted	None	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Roosts communally.	<i>High.</i> There are 7 known occurrences of this species within the project area, the most recent of which was recorded in 2005. Observations within the project area are documented in eBird.
purple martin <i>Progne subis</i>	None	None	SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine.	<i>Low.</i> There are 3 known occurrences of this species within the project area, the most recent of which was recorded in 1938.

SPECIAL STATUS WILDLIFE POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CDFW ¹	Preferred Habitat	Potential to Occur within Project Area
light-footed Ridgway's rail <i>Rallus obsoletus levipes</i>	FE	SE	FP	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover.	<i>Moderate.</i> There are 2 known occurrences of this species within the project area, the most recent of which was recorded in 2002.
bank swallow <i>Riparia riparia</i>	None	ST	None	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	<i>Moderate.</i> There are 3 known occurrences of this species within the project area, the most recent of which was recorded in 1927. Observations within the project area are documented in eBird.
yellow warbler <i>Setophaga petechia</i>	None	None	SSC	Found in riparian forest, scrub, and woodland. Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada.	<i>Moderate.</i> There is 1 known occurrence of this species within the project area, which was recorded in 1999. Observations within the project area are documented in eBird.
California least tern <i>Sternula antillarum browni</i>	FE	SE	FP	Known to occur in alkali playas and coastal dune and beach habitats. Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	<i>Moderate.</i> There are 6 known occurrences of this species within the project area, the most recent of which was recorded in 2011. Observations within the project area are documented in eBird.
least Bell's vireo <i>Vireo bellii pusillus</i>	FE	SE	None	Known to occur in riparian forest, scrub, and woodland habitats. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms.	<i>Moderate to high.</i> There are 8 known occurrences of this species within the project area, the most recent of which was recorded in 2016. Critical habitat for this species also occurs within the southeastern portion of the project area.
Mammals					
Nelson's (=San Joaquin) antelope squirrel <i>Ammospermophilus nelsoni</i>	None	ST	None	Chenopod scrub, western San Joaquin Valley from 200-1200 ft elev. On dry, sparsely vegetated loam soils.	<i>Moderate.</i> There are 2 known occurrences of this species within the project area, the most recent of which was recorded in 1975. Observations within the project area are documented in iNaturalist.
pallid bat <i>Antrozous pallidus</i>	None	None	SSC	Chaparral, coastal scrub, desert wash, great basin grassland, great basin scrub, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, valley and foothill grassland, deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	<i>High.</i> There are 17 known occurrences of this species within the project area, the most recent of which was recorded in 2017.

SPECIAL STATUS WILDLIFE POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CDFW ¹	Preferred Habitat	Potential to Occur within Project Area
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	None	None	SSC	Broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, upper montane coniferous forest, valley and foothill grassland. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting.	<i>High.</i> There are 29 known occurrences of this species within the project area, the most recent of which was recorded in 2013.
giant kangaroo rat <i>Dipodomys ingens</i>	FE	SE	None	Annual grasslands on the western side of the San Joaquin Valley, marginal habitat in alkali scrub.	<i>Moderate.</i> There are 4 known occurrences of this species within the project area, the most recent of which was recorded in 1979. Observations within the project area are documented in iNaturalist.
western mastiff bat <i>Eumops perotis californicus</i>	None	None	SSC	Known to occur in habitat consisting of extensive open areas within dry desert washes, flood plains, chaparral, cismontane oak woodland, coastal scrub, open ponderosa pine forest, and grasslands. Roosts primarily in crevices in rock outcrops and buildings.	<i>Moderate.</i> There are 5 known occurrences of this species within the project area, the most recent of which was recorded in 2008.
western red bat <i>Lasiurus frantzii</i>	None	None	SSC	Prefers edges or habitat mosaics that have trees for roosting and open areas for foraging. Requires nearby water source. Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests.	<i>High.</i> There are 24 known occurrences of this species within the project area, the most recent of which was recorded in 2017.
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	None	None	SSC	Found in a variety of coastal scrub, desert scrub, chaparral, cactus, and rocky habitats. Nests primarily against rock outcroppings, boulders, cacti, or areas of dense undergrowth.	<i>Moderate.</i> There are 7 known occurrences of this species within the project area, the most recent of which was recorded in 2015. Observations within the project area are documented in iNaturalist.
big free-tailed bat <i>Nyctinomops macrotis</i>	None	None	SSC	Low-lying arid areas in Southern California within habitats such as desert shrub, woodlands, and evergreen forests. Need high cliffs or rugged, rocky outcrops or canyons for roosting sites.	<i>Low.</i> There is 1 known occurrence of this species within the project area, the most recent of which was recorded in 1996.
Tulare grasshopper mouse <i>Onychomys torridus tularensis</i>	None	None	SSC	Found primarily on sandy or gravelly soils in open and semi-open habitats. Found in the southern San Joaquin Valley, Carrizo Plain, Cuyama Valley, and nearby foothills of the Sierra Nevada and Tehachapi Mountains.	<i>Moderate.</i> There are 3 known occurrences of this species within the project area, the most recent of which was recorded in 2015.

SPECIAL STATUS WILDLIFE POTENTIAL TO OCCUR

Common Name Scientific Name	Federal ESA Status	State ESA Status	CDFW ¹	Preferred Habitat	Potential to Occur within Project Area
American badger <i>Taxidea taxus</i>	None	None	SSC	Found in a variety of habitats, including alkali marsh, desert wash, Great Basin scrub, marsh and swamp, meadow and seep, Mojavean desert scrub, riparian scrub, riparian woodland, valley and foothill grassland. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	<i>Moderate to high.</i> There are 43 known occurrences of this species within the project area, the most recent of which was recorded in 2016.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	FE	ST	None	Chenopod scrub, valley & foothill grassland. Annual grasslands or grassy open stages with scattered shrubby vegetation.	<i>Moderate to high.</i> There are 13 known occurrences of this species within the project area, the most recent of which was recorded in 1979. Observations within the project area are documented in iNaturalist.

NOTES:

1. CDFW Status

FP = Fully Protected. species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

SA = Special Animal tracked by CDFW or has been given special-status by a non-governmental agency.

SSC = Species of Special Concern. Species are given this designation by CDFW due to declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

WL = Watch List. For species that were previously SSC but no longer merit SSC status, or which do not meet SSC criteria but for which there is concern and a need for additional information to clarify its status.

SOURCE:

CDFW. 2025. California's Wildlife: Life History and Range Maps. <https://wildlife.ca.gov/Data/CWHR/Life-History-and-Range>. Accessed April 2, 2025.

eBird. 2025. Species Maps. <https://ebird.org/map>. Accessed April 2, 2025.

iNaturalist. 2025. Observations. <https://www.inaturalist.org/observations>. Accessed April 2, 2025.

Appendix D

Non-confidential Appendices

NAHC Sacred Lands File Search

NATIVE AMERICAN HERITAGE COMMISSION

February 20, 2025

James Clark
Environmental Science Associates

Via Email to: jclark@esassoc.com

Re: Santa Barbara County Utility-Scale Solar Amendments Project, Santa Barbara County

To Whom It May Concern:

As requested, a record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed based on information submitted for the above referenced project. The results were positive. Please contact the tribes on the attached list for more information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. As such, a SLF search is not a substitute for consultation with all tribes that are traditionally and culturally affiliated with a project's geographic area.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. If within two weeks of notification, a response has not been received, the Commission requests that you follow-up with a telephone call or email to ensure that the project information was received.

If you receive notification of a change of address or phone number from a tribe, please notify the NAHC so that we can assure that our lists contain current information.

In addition to engaging in tribal consultation, you should consult the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center to determine whether it has information regarding the presence of recorded archaeological sites within the project area.

If you have any questions or need additional information, please contact me at Mathew.lin@nahc.ca.gov.

Sincerely,

Mathew Lin

Mathew Lin, MPP
Cultural Resources Analyst

Attachment



CHAIRPERSON
Reginald Pagaling
Chumash

VICE-CHAIRPERSON
Buffy McQuillen
Yokayo Pomo, Yuki,
Nomlaki

SECRETARY
Sara Dutschke
Miwok

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Isaac Bojorquez
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Kumeyaay

COMMISSIONER
Laurena Bolden
Serrano

COMMISSIONER
Reid Milanovich
Cahuilla

COMMISSIONER
Bennae Calac
Pauma-Yuima Band of
Luiseño Indians

ACTING EXECUTIVE
SECRETARY
STEVEN QUINN

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(916) 373-3710
nahc@nahc.ca.gov

Native American Heritage Commission
Native American Contact List
Santa Barbara County
2/20/2025

County	Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Santa Barbara	Barbareno Band of Chumash Indians	N	Barbara Lopez, Cultural Resource Chair	4764 Ashdale Street Santa Barbara, CA, 93110	(805) 689-9528		chumashangels@aol.com	Chumash	Santa Barbara	6/26/2023
	Barbareno Band of Chumash Indians	N	Eleanor Fishburn, Chairperson	PO Box 5687 Ventura, CA, 93005	(805) 701-3246		eleanor@spiritinthewind.net	Chumash	Santa Barbara	6/26/2023
	Barbareño/Ventureño Band of Mission Indians	N	Cultural Resource Committee,	P.O. Box 364 Ojai, CA, 93024	(805) 746-6685		CR@bvbmi.com	Chumash	Kern, Los Angeles, San Luis Obispo, Santa Barbara, Ventura	6/19/2023
	Chumash Council of Bakersfield	N	Julio Quair, Chairperson	729 Texas Street Bakersfield, CA, 93307	(661) 322-0121		chumashtribe@sbcglobal.net	Chumash	Kern, Los Angeles, San Luis Obispo, Santa Barbara, Ventura	
	Coastal Band of the Chumash Nation	N	Gabe Frausto, Chairman	P.O. Box 40653 Santa Barbara, CA, 93140	(805) 568-8063		fraustogabriel28@gmail.com	Chumash	Kern, Los Angeles, San Luis Obispo, Santa Barbara, Ventura	8/28/2023
	Northern Chumash Tribal Council	N	Violet Walker, Chairperson	P.O. Box 6533 Los Osos, CA, 93412	(760) 549-3532		violetsagewalker@gmail.com	Chumash	Kern, Los Angeles, San Luis Obispo, Santa Barbara, Ventura	6/5/2023
	Santa Ynez Band of Chumash Indians	F	Wendy Teeter, Cultural Resources Archaeologist	100 Via Juana Road Santa Ynez, CA, 93460	(805) 325-8630		wteeter@chumash.gov	Chumash	Kern, Los Angeles, San Luis Obispo, Santa Barbara, Ventura	7/6/2023
	Santa Ynez Band of Chumash Indians	F	Sam Cohen, Government & Legal Affairs Director	100 Via Juana Road Santa Ynez, CA, 93460			scohen@chumash.gov	Chumash	Kern, Los Angeles, San Luis Obispo, Santa Barbara, Ventura	7/6/2023
	Santa Ynez Band of Chumash Indians	F	Crystal Mendoza, Elders' Council Administrative Assistant	100 Via Juana Road Santa Ynez, CA, 93460	(805) 325-5537		cmendoza@chumash.gov	Chumash	Kern, Los Angeles, San Luis Obispo, Santa Barbara, Ventura	2/27/2024
	Santa Ynez Band of Chumash Indians	F	Nakia Zavalla, Tribal Historic Preservation Officer	100 Via Juana Road Santa Ynez, CA, 93460			nzavalla@chumash.gov	Chumash	Kern, Los Angeles, San Luis Obispo, Santa Barbara, Ventura	7/6/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Santa Barbara County Utility-Scale Solar Amendments Project, Santa Barbara County.

Record: PROJ-2025-000973
Report Type: List of Tribes
Counties: Santa Barbara
NAHC Group: All

AB 52 Outreach



Planning and Development

Lisa Plowman, Director

Jeff Wilson, Assistant Director

Elise Dale, Assistant Director

December 20, 2024

CERTIFIED MAIL / RETURN RECEIPT REQUESTED

Gabriel Frausto, Chairman
Coastal Band of the Chumash Nation (CBCN)
595 Ranch Road, Solvang, CA 93463
805-568-8063
coastalchumashcrm@gmail.com

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014).
Formal Notification of determination that a Project Application is Complete or Decision to
Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources
Code (PRC) § 21080.3.1

Utility-Scale Solar Amendments, Case Numbers 24ORD-00028, 24ORD-00029, and 24ORD-00030,
Santa Barbara County, CA

Dear Chairman Frausto:

In July, 2021, the Santa Barbara County Board of Supervisors directed the Planning & Development Department (P&D) to initiate the Utility-Scale Solar Amendments project, which is located countywide. In 2023, P&D began developing the project scope. On November 7, 2024, P&D issued a Notice of Preparation for the Programmatic Environmental Impact Report (EIR), thus commencing environmental review for the Utility-Scale Solar Amendments.

Below please find a description of the proposed project and the name of our project point of contact, and an Environmental Scoping Document for Utility-Scale Solar Amendments showing the project location, pursuant to PRC § 21080.3.1 (d). The Scoping Document also states that the Programmatic EIR will include a program-level CEQA analysis of cultural and tribal resources. The Scoping Document is included as an attachment to this letter.

Description of the Proposed Project

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As part of the amendments, a new category of solar energy facility, termed “community-scale,” would be defined and conditionally allowed within the same zoning designations. Community-scale solar energy facilities are typically smaller than utility-scale facilities, fit into an established development pattern, and connect to the electricity distribution network. In tandem with the utility-scale solar ordinance revisions, existing development standards and other related components of the zoning ordinances will be revised to meet new State requirements for streamlining the permitting of solar energy systems. In part, the solar energy system amendments will allow for streamlined permitting of solar carports and other solar shade structures in accordance with California Government Code Section 65850.5 and pertinent definitions in California Civil Code Section 801.5.

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Lead Agency Point of Contact

Zoe Carlson, Planner
County of Santa Barbara Planning & Development Department
Long Range Planning Division
123 E. Anapamu Street
Santa Barbara, CA 93101
805-568-3532, carlsonz@countyofsb.org

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Santa Barbara County Planning & Development Department.

Very Respectfully,



Jeff Wilson, Assistant Director
Santa Barbara County Planning & Development

Attachments: Environmental Scoping Document for Utility-Scale Solar Amendments

CC: Zoe Carlson, Planning & Development



Planning and Development

Lisa Plowman, Director

Jeff Wilson, Assistant Director

Elise Dale, Assistant Director

December 20, 2024

CERTIFIED MAIL / RETURN RECEIPT REQUESTED

Julie Tumamait-Stenslie

Chair, Barbareño/Ventureño Band of Mission Indians

365 N. Poli Avenue, Ojai, CA 93023

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of determination that a Project Application is Complete or Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code (PRC) § 21080.3.1

Utility-Scale Solar Amendments, Case Numbers 24ORD-00028, 24ORD-00029, and 24ORD-00030, Santa Barbara County, CA

Dear Chair Tumamait-Stenslie:

In July, 2021, the Santa Barbara County Board of Supervisors directed the Planning & Development Department (P&D) to initiate the Utility-Scale Solar Amendments project, which is located countywide. In 2023, P&D began developing the project scope. On November 7, 2024, P&D issued a Notice of Preparation for the Programmatic Environmental Impact Report (EIR), thus commencing environmental review for the Utility-Scale Solar Amendments.

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Lead Agency Point of Contact

Zoe Carlson, Planner
County of Santa Barbara Planning & Development Department
Long Range Planning Division
123 E. Anapamu Street
Santa Barbara, CA 93101
805-568-3532, carlsonz@countyofsb.org

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Santa Barbara County Planning & Development Department.

Very Respectfully,



Jeff Wilson, Assistant Director
Santa Barbara County Planning & Development

Attachments: Environmental Scoping Document for Utility-Scale Solar Amendments

CC: Zoe Carlson, Planning & Development



Planning and Development

Lisa Plowman, Director

Jeff Wilson, Assistant Director

Elise Dale, Assistant Director

December 20, 2024

CERTIFIED MAIL / RETURN RECEIPT REQUESTED

Kenneth Kahn, Tribal Chairman
Santa Ynez Band of Chumash Indians
P.O. Box 517
Santa Ynez, CA 93460
kkeeper@sybmi.org

cc: Sam Cohen, Government Affairs and Legal Officer, scohen@sybmi.org

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014).
Formal Notification of determination that a Project Application is Complete or Decision to
Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources
Code (PRC) § 21080.3.1

Utility-Scale Solar Amendments, Case Numbers 24ORD-00028, 24ORD-00029, and 24ORD-00030,
Santa Barbara County, CA

Dear Chairman Kahn:

In July, 2021, the Santa Barbara County Board of Supervisors directed the Planning & Development Department (P&D) to initiate the Utility-Scale Solar Amendments project, which is located countywide. In 2023, P&D began developing the project scope. On November 7, 2024, P&D issued a Notice of Preparation for the Programmatic Environmental Impact Report (EIR), thus commencing environmental review for the Utility-Scale Solar Amendments.

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Lead Agency Point of Contact

Zoe Carlson, Planner

County of Santa Barbara Planning & Development Department

Long Range Planning Division

123 E. Anapamu Street

Santa Barbara, CA 93101

805-568-3532, carlsonz@countyofsb.org

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Santa Barbara County Planning & Development Department.

Very Respectfully,



Jeff Wilson, Assistant Director

Santa Barbara County Planning & Development

Attachments: Environmental Scoping Document for Utility-Scale Solar Amendments

CC: Zoe Carlson, Planning & Development



Planning and Development

Lisa Plowman, Director

Jeff Wilson, Assistant Director

Elise Dale, Assistant Director

December 20, 2024

CERTIFIED MAIL / RETURN RECEIPT REQUESTED

Matthew Vestuto

Chair, Barbareño/Ventureño Band of Mission Indians

P.O. Box 364, Ojai, CA 93024

chair@bvbmi.com

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of determination that a Project Application is Complete or Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code (PRC) § 21080.3.1

Utility-Scale Solar Amendments, Case Numbers 24ORD-00028, 24ORD-00029, and 24ORD-00030, Santa Barbara County, CA

Dear Chair Vestuto:

In July, 2021, the Santa Barbara County Board of Supervisors directed the Planning & Development Department (P&D) to initiate the Utility-Scale Solar Amendments project, which is located countywide. In 2023, P&D began developing the project scope. On November 7, 2024, P&D issued a Notice of Preparation for the Programmatic Environmental Impact Report (EIR), thus commencing environmental review for the Utility-Scale Solar Amendments.

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Lead Agency Point of Contact

Zoe Carlson, Planner
County of Santa Barbara Planning & Development Department
Long Range Planning Division
123 E. Anapamu Street
Santa Barbara, CA 93101
805-568-3532, carlsonz@countyofsb.org

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Very Respectfully,



Jeff Wilson, Assistant Director
Santa Barbara County Planning & Development

Attachments: Environmental Scoping Document for Utility-Scale Solar Amendments

CC: Zoe Carlson, Planning & Development

SB 18 Outreach



Planning and Development

Lisa Plowman, Director

Jeff Wilson, Assistant Director

Elise Dale, Assistant Director

December 20, 2024

Barbara Lopez, Cultural Resource Chair
Barbareño Band of Chumash Indians
4764 Ashdale Street
Santa Barbara, CA, 93110

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Ms. Lopez:

Consistent with Government Code Section 65352.3, the County of Santa Barbara invites the Barbareño Band of Chumash Indians to consult regarding Utility-Scale Solar Amendments. It is important that the Barbareño Band of Chumash Indians participate in the local planning process in order to protect or mitigate impacts to tribal cultural places.

For your review and consideration, enclosed please find a copy of the *Environmental Scoping Document for Utility-Scale Solar Amendments*. The Scoping Document contains a map that clearly details the geographic area of the proposed Utility-Scale Solar Amendments. The Utility-Scale Solar Amendments project proposes to allow utility-scale solar development as a conditionally permitted use (i.e., permitted with a Conditional Use Permit) on lands zoned Professional and Institutional (PI), Agricultural I (AG-I), Agricultural II (AG-II), Public Utility (PU), Light Industry (M-1), General Industry (M-2), Industrial Research Park (M-RP), Coastal Related Industry (M-CR), and Coastal Dependent Industry (M-CD) within the Inland Area and Coastal Zone portions of the unincorporated county.

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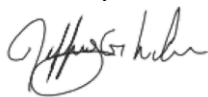
The County of Santa Barbara would appreciate notification of whether the Barbareño Band of Chumash Indians wishes to consult regarding this project. Please direct your response regarding this invitation to:

Eva Marrero
Long Range Planning Division
30 E. Figueroa Street, 2nd Floor
Santa Barbara, CA 93101
(805) 568-2044
marreroe@countyofsb.org

According to Government Code Section 65352.3, the Barbareño Band of Chumash Indians has 90 days from receipt of this invitation to respond; however, we would very much appreciate receiving an earlier response if you wish to commence consultations. On the other hand, if we do not receive a response by Tuesday, March 11, 2025, we will assume that the Barbareño Band of Chumash Indians has declined this opportunity to consult on the Utility-Scale Solar Amendments.

If you have any questions about the project or would like additional information please contact Eva Marrero at (805) 568-2044.

Sincerely,



Jeff Wilson, Assistant Director
Planning & Development Department

Enclosures:

Environmental Scoping Document for Utility-Scale Solar Amendments

cc: Larry Myers, Executive Secretary
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814



Planning and Development

Lisa Plowman, Director
Jeff Wilson, Assistant Director
Elise Dale, Assistant Director

December 20, 2024

Crystal Mendoza, Elders' Council Administrative Assistant
Santa Ynez Band of Chumash Indians
100 Via Juana Road
Santa Ynez, CA, 93460

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Ms. Mendoza:

Consistent with Government Code Section 65352.3, the County of Santa Barbara invites the Santa Ynez Band of Chumash Indians to consult regarding Utility-Scale Solar Amendments. It is important that the Santa Ynez Band of Chumash Indians participate in the local planning process in order to protect or mitigate impacts to tribal cultural places.

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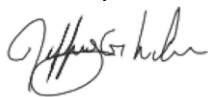
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Planning and Development

Lisa Plowman, Director
Jeff Wilson, Assistant Director
Elise Dale, Assistant Director

December 20, 2024

Cultural Resource Committee
Barbareño/Ventureño Band of Mission Indians
P.O. Box 364
Ojai, CA, 93024

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Members of the Cultural Resource Committee:

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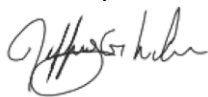
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Planning and Development

Lisa Plowman, Director
Jeff Wilson, Assistant Director
Elise Dale, Assistant Director

December 20, 2024

Eleanor Fishburn, Chairperson
Barbareño Band of Chumash Indians
P.O. Box 5687
Ventura, CA, 93005

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Ms. Fishburn:

Consistent with Government Code Section 65352.3, the County of Santa Barbara invites the Barbareño Band of Chumash Indians to consult regarding Utility-Scale Solar Amendments. It is important that the Barbareño Band of Chumash Indians participate in the local planning process in order to protect or mitigate impacts to tribal cultural places.

For your review and consideration, enclosed please find a copy of the *Environmental Scoping Document for Utility-Scale Solar Amendments*. The Scoping Document contains a map that clearly details the geographic area of the proposed Utility-Scale Solar Amendments. The Utility-Scale Solar Amendments project proposes to allow utility-scale solar development as a conditionally permitted use (i.e., permitted with a Conditional Use Permit) on lands zoned Professional and Institutional (PI), Agricultural I (AG-I), Agricultural II (AG-II), Public Utility (PU), Light Industry (M-1), General Industry (M-2), Industrial Research Park (M-RP), Coastal Related Industry (M-CR), and Coastal Dependent Industry (M-CD) within the Inland Area and Coastal Zone portions of the unincorporated county.

As part of the amendments, a new category of solar energy facility, termed “community-scale,” would be defined and conditionally allowed within the same zoning designations. Community-scale solar energy facilities are typically smaller than utility-scale facilities, fit into an established development pattern, and connect to the electricity distribution network. In tandem with the utility-scale solar ordinance revisions, existing development standards and other related components of the zoning ordinances will be revised to meet new State requirements for streamlining the permitting of solar energy systems. In part, the solar energy system amendments will allow for streamlined permitting of solar carports and other solar shade structures in accordance with California Government Code Section 65850.5 and pertinent definitions in California Civil Code Section 801.5.

The Project would update the following County of Santa Barbara land use plans and regulations:

- County of Santa Barbara Comprehensive Plan, including the Land Use Element
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The project description, location, and potential environmental effects are included in the *Environmental Scoping Document for Utility-Scale Solar Amendments*.

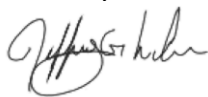
The County of Santa Barbara would appreciate notification of whether the Barbareño Band of Chumash Indians wishes to consult regarding this project. Please direct your response regarding this invitation to:

Eva Marrero
Long Range Planning Division
30 E. Figueroa Street, 2nd Floor
Santa Barbara, CA 93101
(805) 568-2044
marreroe@countyofsb.org

According to Government Code Section 65352.3, the Barbareño Band of Chumash Indians has 90 days from receipt of this invitation to respond; however, we would very much appreciate receiving an earlier response if you wish to commence consultations. On the other hand, if we do not receive a response by Tuesday, March 11, 2025, we will assume that the Barbareño Band of Chumash Indians has declined this opportunity to consult on the Utility-Scale Solar Amendments.

If you have any questions about the project or would like additional information please contact Eva Marrero at (805) 568-2044.

Sincerely,



Jeff Wilson, Assistant Director
Planning & Development Department

Enclosures:

Environmental Scoping Document for Utility-Scale Solar Amendments

cc: Larry Myers, Executive Secretary
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814



Planning and Development

Lisa Plowman, Director
Jeff Wilson, Assistant Director
Elise Dale, Assistant Director

December 20, 2024

Gabe Frausto
Coastal Band of the Chumash Nation
P.O. Box 40653
Santa Barbara, CA, 93140

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Chair Frausto:

Consistent with Government Code Section 65352.3, the County of Santa Barbara invites the Coastal Band of the Chumash Nation to consult regarding Utility-Scale Solar Amendments. It is important that the Coastal Band of the Chumash Nation participate in the local planning process in order to protect or mitigate impacts to tribal cultural places.

For your review and consideration, enclosed please find a copy of the *Environmental Scoping Document for Utility-Scale Solar Amendments*. The Scoping Document contains a map that clearly details the geographic area of the proposed Utility-Scale Solar Amendments. The Utility-Scale Solar Amendments project proposes to allow utility-scale solar development as a conditionally permitted use (i.e., permitted with a Conditional Use Permit) on lands zoned Professional and Institutional (PI), Agricultural I (AG-I), Agricultural II (AG-II), Public Utility (PU), Light Industry (M-1), General Industry (M-2), Industrial Research Park (M-RP), Coastal Related Industry (M-CR), and Coastal Dependent Industry (M-CD) within the Inland Area and Coastal Zone portions of the unincorporated county.

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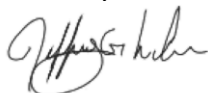
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Eva Marrero
Long Range Planning Division
30 E. Figueroa Street, 2nd Floor
Santa Barbara, CA 93101
(805) 568-2044
marreroe@countyofsb.org

According to Government Code Section 65352.3, the Coastal Band of the Chumash Nation has 90 days from receipt of this invitation to respond; however, we would very much appreciate receiving an earlier response if you wish to commence consultations. On the other hand, if we do not receive a response by Tuesday, March 11, 2025, we will assume that the Coastal Band of the Chumash Nation has declined this opportunity to consult on the Utility-Scale Solar Amendments.

If you have any questions about the project or would like additional information please contact Eva Marrero at (805) 568-2044.

Sincerely,

A handwritten signature in dark ink, appearing to read "Jeff Wilson", is written over a light blue horizontal line.

Jeff Wilson, Assistant Director
Planning & Development Department

Enclosures:

Environmental Scoping Document for Utility-Scale Solar Amendments

cc: Larry Myers, Executive Secretary
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814



Planning and Development

Lisa Plowman, Director
Jeff Wilson, Assistant Director
Elise Dale, Assistant Director

December 20, 2024

Julio Quair, Chairperson
Chumash Council of Bakersfield
729 Texas Street
Bakersfield, CA, 93307

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Mr. Quair:

Consistent with Government Code Section 65352.3, the County of Santa Barbara invites the Chumash Council of Bakersfield to consult regarding Utility-Scale Solar Amendments. It is important that the Chumash Council of Bakersfield participate in the local planning process in order to protect or mitigate impacts to tribal cultural places.

For your review and consideration, enclosed please find a copy of the *Environmental Scoping Document for Utility-Scale Solar Amendments*. The Scoping Document contains a map that clearly details the geographic area of the proposed Utility-Scale Solar Amendments. The Utility-Scale Solar Amendments project proposes to allow utility-scale solar development as a conditionally permitted use (i.e., permitted with a Conditional Use Permit) on lands zoned Professional and Institutional (PI), Agricultural I (AG-I), Agricultural II (AG-II), Public Utility (PU), Light Industry (M-1), General Industry (M-2), Industrial Research Park (M-RP), Coastal Related Industry (M-CR), and Coastal Dependent Industry (M-CD) within the Inland Area and Coastal Zone portions of the unincorporated county.

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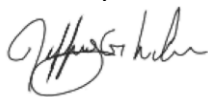
The County of Santa Barbara would appreciate notification of whether the Chumash Council of Bakersfield wishes to consult regarding this project. Please direct your response regarding this invitation to:

Eva Marrero
Long Range Planning Division
30 E. Figueroa Street, 2nd Floor
Santa Barbara, CA 93101
(805) 568-2044
marreroe@countyofsb.org

According to Government Code Section 65352.3, the Chumash Council of Bakersfield has 90 days from receipt of this invitation to respond; however, we would very much appreciate receiving an earlier response if you wish to commence consultations. On the other hand, if we do not receive a response by Tuesday, March 11, 2025, we will assume that the Chumash Council of Bakersfield has declined this opportunity to consult on the Utility-Scale Solar Amendments.

If you have any questions about the project or would like additional information please contact Eva Marrero at (805) 568-2044.

Sincerely,



Jeff Wilson, Assistant Director
Planning & Development Department

Enclosures:

Environmental Scoping Document for Utility-Scale Solar Amendments

cc: Larry Myers, Executive Secretary
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814



Planning and Development

Lisa Plowman, Director
Jeff Wilson, Assistant Director
Elise Dale, Assistant Director

December 20, 2024

Karen White, Chairperson
Xolon-Salinan Tribe
P.O. Box 7045
Spreckles, CA, 93962

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Ms. White:

Consistent with Government Code Section 65352.3, the County of Santa Barbara invites the Xolon-Salinan Tribe to consult regarding Utility-Scale Solar Amendments. It is important that the Xolon-Salinan Tribe participate in the local planning process in order to protect or mitigate impacts to tribal cultural places.

For your review and consideration, enclosed please find a copy of the *Environmental Scoping Document for Utility-Scale Solar Amendments*. The Scoping Document contains a map that clearly details the geographic area of the proposed Utility-Scale Solar Amendments. The Utility-Scale Solar Amendments project proposes to allow utility-scale solar development as a conditionally permitted use (i.e., permitted with a Conditional Use Permit) on lands zoned Professional and Institutional (PI), Agricultural I (AG-I), Agricultural II (AG-II), Public Utility (PU), Light Industry (M-1), General Industry (M-2), Industrial Research Park (M-RP), Coastal Related Industry (M-CR), and Coastal Dependent Industry (M-CD) within the Inland Area and Coastal Zone portions of the unincorporated county.

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The project description, location, and potential environmental effects are included in the *Environmental Scoping Document for Utility-Scale Solar Amendments*.

The County of Santa Barbara would appreciate notification of whether the Xolon-Salinan Tribe wishes to consult regarding this project. Please direct your response regarding this invitation to:

Eva Marrero
Long Range Planning Division
30 E. Figueroa Street, 2nd Floor
Santa Barbara, CA 93101
(805) 568-2044
marreroe@countyofsb.org

According to Government Code Section 65352.3, the Xolon-Salinan Tribe has 90 days from receipt of this invitation to respond; however, we would very much appreciate receiving an earlier response if you wish to commence consultations. On the other hand, if we do not receive a response by Tuesday, March 11, 2025, we will assume that the Xolon-Salinan Tribe has declined this opportunity to consult on the Utility-Scale Solar Amendments.

If you have any questions about the project or would like additional information please contact Eva Marrero at (805) 568-2044.

Sincerely,



Jeff Wilson, Assistant Director
Planning & Development Department

Enclosures:

Environmental Scoping Document for Utility-Scale Solar Amendments

cc: Larry Myers, Executive Secretary
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814



Planning and Development

Lisa Plowman, Director
Jeff Wilson, Assistant Director
Elise Dale, Assistant Director

December 20, 2024

Mona Tucker, Chairperson
yak tityu tityu yak tihini – Northern Chumash Tribe
660 Camino Del Rey
Arroyo Grande, CA, 93420

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Ms. Tucker:

Consistent with Government Code Section 65352.3, the County of Santa Barbara invites the yak tityu tityu yak tihini – Northern Chumash Tribe to consult regarding Utility-Scale Solar Amendments. It is important that the yak tityu tityu yak tihini – Northern Chumash Tribe participate in the local planning process in order to protect or mitigate impacts to tribal cultural places.

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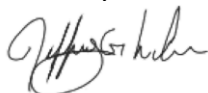
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If you have any questions about the project or would like additional information please contact Eva Marrero at (805) 568-2044.

Sincerely,

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Jeff Wilson, Assistant Director
Planning & Development Department

Enclosures:

Environmental Scoping Document for Utility-Scale Solar Amendments

cc: Larry Myers, Executive Secretary
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814



Planning and Development

Lisa Plowman, Director
Jeff Wilson, Assistant Director
Elise Dale, Assistant Director

December 20, 2024

Nakia Zavalla, Tribal Historic Preservation Officer
Santa Ynez Band of Chumash Indians
100 Via Juana Road
Santa Ynez, CA, 93460

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Ms. Zavalla:

Consistent with Government Code Section 65352.3, the County of Santa Barbara invites the Santa Ynez Band of Chumash Indians to consult regarding Utility-Scale Solar Amendments. It is important that the Santa Ynez Band of Chumash Indians participate in the local planning process in order to protect or mitigate impacts to tribal cultural places.

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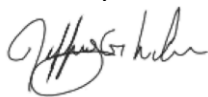
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(805) 568-2044
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If you have any questions about the project or would like additional information please contact Eva Marrero at (805) 568-2044.

Sincerely,



Jeff Wilson, Assistant Director
Planning & Development Department

Enclosures:

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cc: Larry Myers, Executive Secretary
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814



Planning and Development

Lisa Plowman, Director
Jeff Wilson, Assistant Director
Elise Dale, Assistant Director

December 20, 2024

Penny Hurt, Cultural Preservation Administrator
Xolon-Salinan Tribe
P.O. Box 7045
Spreckels, CA, 93962

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Ms. Hurt:

Consistent with Government Code Section 65352.3, the County of Santa Barbara invites the Xolon-Salinan Tribe to consult regarding Utility-Scale Solar Amendments. It is important that the Xolon-Salinan Tribe participate in the local planning process in order to protect or mitigate impacts to tribal cultural places.

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Long Range Planning Division
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Santa Barbara, CA 93101
(805) 568-2044
marreroe@countyofsb.org

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If you have any questions about the project or would like additional information please contact Eva Marrero at (805) 568-2044.

Sincerely,



Jeff Wilson, Assistant Director
Planning & Development Department

Enclosures:

Environmental Scoping Document for Utility-Scale Solar Amendments

cc: Larry Myers, Executive Secretary
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814



Planning and Development

Lisa Plowman, Director
Jeff Wilson, Assistant Director
Elise Dale, Assistant Director

December 20, 2024

Sam Cohen, Government & Legal Affairs Director
Santa Ynez Band of Chumash Indians
100 Via Juana Road
Santa Ynez, CA, 93460

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Mr. Cohen:

Consistent with Government Code Section 65352.3, the County of Santa Barbara invites the Santa Ynez Band of Chumash Indians to consult regarding Utility-Scale Solar Amendments. It is important that the Santa Ynez Band of Chumash Indians participate in the local planning process in order to protect or mitigate impacts to tribal cultural places.

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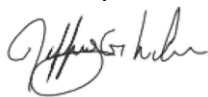
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If you have any questions about the project or would like additional information please contact Eva Marrero at (805) 568-2044.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Wilson", is written over a light blue horizontal line.

Jeff Wilson, Assistant Director
Planning & Development Department

Enclosures:

Environmental Scoping Document for Utility-Scale Solar Amendments

cc: Larry Myers, Executive Secretary
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814



Planning and Development

Lisa Plowman, Director
Jeff Wilson, Assistant Director
Elise Dale, Assistant Director

December 20, 2024

Violet Walker, Chairperson
Northern Chumash Tribal Council
P.O. Box 6533
Los Osos, CA, 93412

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Ms. Walker:

Consistent with Government Code Section 65352.3, the County of Santa Barbara invites the Northern Chumash Tribal Council to consult regarding Utility-Scale Solar Amendments. It is important that the Northern Chumash Tribal Council participate in the local planning process in order to protect or mitigate impacts to tribal cultural places.

For your review and consideration, enclosed please find a copy of the *Environmental Scoping Document for Utility-Scale Solar Amendments*. The Scoping Document contains a map that clearly details the geographic area of the proposed Utility-Scale Solar Amendments. The Utility-Scale Solar Amendments project proposes to allow utility-scale solar development as a conditionally permitted use (i.e., permitted with a Conditional Use Permit) on lands zoned Professional and Institutional (PI), Agricultural I (AG-I), Agricultural II (AG-II), Public Utility (PU), Light Industry (M-1), General Industry (M-2), Industrial Research Park (M-RP), Coastal Related Industry (M-CR), and Coastal Dependent Industry (M-CD) within the Inland Area and Coastal Zone portions of the unincorporated county.

As part of the amendments, a new category of solar energy facility, termed “community-scale,” would be defined and conditionally allowed within the same zoning designations. Community-scale solar energy facilities are typically smaller than utility-scale facilities, fit into an established development pattern, and connect to the electricity distribution network. In tandem with the utility-scale solar ordinance revisions, existing development standards and other related components of the zoning ordinances will be revised to meet new State requirements for streamlining the permitting of solar energy systems. In part, the solar energy system amendments will allow for streamlined permitting of solar carports and other solar shade structures in accordance with California Government Code Section 65850.5 and pertinent definitions in California Civil Code Section 801.5.

The Project would update the following County of Santa Barbara land use plans and regulations:

- County of Santa Barbara Comprehensive Plan, including the Land Use Element
- Coastal Land Use Plan
- County Land Use and Development Code (LUDC)
- Montecito LUDC
- Article II Coastal Zoning Ordinance
- Gaviota Coast Plan and other community plans to be identified if needed
- Uniform Rules for Agricultural Preserves and Farmland Security Zones (Uniform Rules)

The project description, location, and potential environmental effects are included in the *Environmental Scoping Document for Utility-Scale Solar Amendments*.

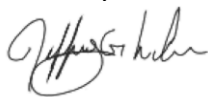
The County of Santa Barbara would appreciate notification of whether the Northern Chumash Tribal Council wishes to consult regarding this project. Please direct your response regarding this invitation to:

Eva Marrero
Long Range Planning Division
30 E. Figueroa Street, 2nd Floor
Santa Barbara, CA 93101
(805) 568-2044
marreroe@countyofsb.org

According to Government Code Section 65352.3, the Northern Chumash Tribal Council has 90 days from receipt of this invitation to respond; however, we would very much appreciate receiving an earlier response if you wish to commence consultations. On the other hand, if we do not receive a response by Tuesday, March 11, 2025, we will assume that the Northern Chumash Tribal Council has declined this opportunity to consult on the Utility-Scale Solar Amendments.

If you have any questions about the project or would like additional information please contact Eva Marrero at (805) 568-2044.

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Planning and Development

Lisa Plowman, Director
Jeff Wilson, Assistant Director
Elise Dale, Assistant Director

December 20, 2024

Wendy Teeter, Cultural Resources Archeologist
Santa Ynez Band of Chumash Indians
100 Via Juana Road
Santa Ynez, CA, 93460

RE: Opportunity for Consultation – Utility-Scale Solar Amendments, Santa Barbara County, CA
Case Numbers: 24ORD-00028, 24ORD-00029, and 24ORD-00030

Dear Ms. Teeter:

Consistent with Government Code Section 65352.3, the County of Santa Barbara invites the Santa Ynez Band of Chumash Indians to consult regarding Utility-Scale Solar Amendments. It is important that the Santa Ynez Band of Chumash Indians participate in the local planning process in order to protect or mitigate impacts to tribal cultural places.

For your review and consideration, enclosed please find a copy of the *Environmental Scoping Document for Utility-Scale Solar Amendments*. The Scoping Document contains a map that clearly details the geographic area of the proposed Utility-Scale Solar Amendments. The Utility-Scale Solar Amendments project proposes to allow utility-scale solar development as a conditionally permitted use (i.e., permitted with a Conditional Use Permit) on lands zoned Professional and Institutional (PI), Agricultural I (AG-I), Agricultural II (AG-II), Public Utility (PU), Light Industry (M-1), General Industry (M-2), Industrial Research Park (M-RP), Coastal Related Industry (M-CR), and Coastal Dependent Industry (M-CD) within the Inland Area and Coastal Zone portions of the unincorporated county.

As part of the amendments, a new category of solar energy facility, termed “community-scale,” would be defined and conditionally allowed within the same zoning designations. Community-scale solar energy facilities are typically smaller than utility-scale facilities, fit into an established development pattern, and connect to the electricity distribution network. In tandem with the utility-scale solar ordinance revisions, existing development standards and other related components of the zoning ordinances will be revised to meet new State requirements for streamlining the permitting of solar energy systems. In part, the solar energy system amendments will allow for streamlined permitting of solar carports and other solar shade structures in accordance with California Government Code Section 65850.5 and pertinent definitions in California Civil Code Section 801.5.

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- Gaviota Coast Plan and other community plans to be identified if needed
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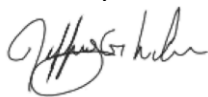
The County of Santa Barbara would appreciate notification of whether the Santa Ynez Band of Chumash Indians wishes to consult regarding this project. Please direct your response regarding this invitation to:

Eva Marrero
Long Range Planning Division
30 E. Figueroa Street, 2nd Floor
Santa Barbara, CA 93101
(805) 568-2044
marreroe@countyofsb.org

According to Government Code Section 65352.3, the Santa Ynez Band of Chumash Indians has 90 days from receipt of this invitation to respond; however, we would very much appreciate receiving an earlier response if you wish to commence consultations. On the other hand, if we do not receive a response by Tuesday, March 11, 2025, we will assume that the Santa Ynez Band of Chumash Indians has declined this opportunity to consult on the Utility-Scale Solar Amendments.

If you have any questions about the project or would like additional information please contact Eva Marrero at (805) 568-2044.

Sincerely,

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Jeff Wilson, Assistant Director
Planning & Development Department

Enclosures:

Environmental Scoping Document for Utility-Scale Solar Amendments

cc: Larry Myers, Executive Secretary
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814

Appendix E

Energy Calculations and Output Files



E-1 Assumptions

Tier 1 and Tier 2 Assumptions
Construction and Operations Assumptions

Site (acres): 5
Lot Area (sqft): 217,800
Location: Santa Barbara County
CEC Forecasting Climate Zone: 11
Utility: SCE
Operational Year: 2026

Project Land Uses

Land Use	CalEEMod LandUse Type	CalEEMod LandUse Subtype	Amount	Unit	Building sq.ft.	Acres		Landscaping sf
Project Site	Parking	Other non-asphalt surfaces	0	SQFT	0	5		
Land Use Type Totals	Parking	Other non-asphalt surfaces	0.000	SQFT	0	5		

Construction Schedule

Construction Trips

Phase	Start Date	Completion Date	Work Days	# Workers/Day	# Worker Trips/Day (In/Out) ²	# Vendors/Day	# Vendor Trips/Day (In/Out)	# Hauling/Concrete Trucks Per Day (In/Out)	# Hauling/Concrete Truck Trips Per Day (In/Out)
Site Preparation	1/1/2026	4/30/2026	86	26	52	6	12	0	0
Grading	5/1/2026	6/30/2026	43	30	60	6	12	10	20
Building Construction	7/1/2026	10/31/2028	610	30	60	25	50	0	0
			739						

Vendor Trips

	Amount
Panel Delivery Daily Trucks	10
Maximum Trips/Day (In/Out)	20
Steel Delivery Daily Trucks	7
Maximum Trips/Day (In/Out)	14
Misc. Electrical Components Daily Trucks	5
Minimum Haul Trips/Day	10
Water Vendor Trips/Day	6
Daily Vendor Trucks per day	25
Maximum Vendor Trips/Day (In/Out)	50

Grading	
Area (Acres)	5
Haul trucks/Day	10
Haul trips/Day (in/out)	20
Estimated Haul Days	43
Total Haul Trips (in/out)	860
Grading over area times	3
Daily Graded Area (Acres)	15
Haul Truck Capacity (CY)	10
Daily Haul Amount (CY)	200
Estimated Total Haul Amount Export (CY)	86000

Assumption
Assumption
From estimated schedule grading phase

Assumption

Assumption
calculation
calculation

Construction Equipment by Phase

Number of each piece of equipment
Hrs/day hours per day of operating per construction phase

Phase	Equipment Type	#	Hrs/day	Notes
Site Preparation	Graders	1	8	
Site Preparation	Rubber Tired Dozers	1	8	
Site Preparation	Tractors/Loaders/Backhoes	1	8	
Site Preparation	Offroad Truck	1	8	
Site Preparation	Generator Set	1	8	
Grading	Graders	1	8	
Grading	Rubber Tired Dozers	1	8	
Grading	Tractors/Loaders/Backhoes	2	8	
Grading	Offroad Truck	1	8	
Grading	Generator Set	1	8	
Grading	Scraper	2	8	
Building Construction	Cranes	1	8	
Building Construction	Forklifts	1	8	
Building Construction	Tractors/Loaders/Backhoes	1	8	
Building Construction	Welders	3	8	
Building Construction	Trencher	1	8	
Building Construction	Drig Rig	1	8	
Building Construction	Offroad Truck	1	8	
Building Construction	Generator Set	1	8	

TIER 1 AND TIER 2 MODEL ASSUMPTIONS

Land Use Size	5 acres		
Earth Movement	86,000 cubic yards		
Construction Phase	Modeling Duration	Equipment	Vehicle Trips (One-Way Trips)
Site Preparation	86 Days	Graders: 1 Rubber Tired Dozers: 1 Tractors/Loaders/Backhoes: 1 Offroad Truck: 1 Generator Set: 1	Worker: 52 Vendors: 12 Hauling: 0
Grading	43 Days	Graders: 1 Rubber Tired Dozers: 1 Tractors/Loaders/Backhoes: 2 Offroad Truck: 1 Generator Set: 1 Scraper: 2	Worker: 60 Vendors: 12 Hauling: 20
Construction	610 Days	Cranes: 1 Forklifts: 1 Tractors/Loaders/Backhoes: 1 Welders: 3 Trencher: 1 Drill Rig: 1 Offroad Truck: 1 Generator Set: 1	Worker: 60 Vendors: 50 Hauling: 0
SOURCE: ESA 2025			

Tier 3 and Tier 4 Assumptions
Construction and Operations Assumptions

Site (acres): 600
Lot Area (sqft): 26,136,000
Location: Santa Barbara County
CEC Forecasting Climate Zone: 11
Utility: SCE
Operational Year: 2026

Project Land Uses

Land Use	CalEEMod LandUse Type	CalEEMod LandUse Subtype	Amount	Unit	Building sq.ft.	Acres		Landscaping sf
Project Siite	Parking	Other non-asphalt surfaces	0	SQFT	0	600		
Land Use Type Totals								
	Parking	Other non-asphalt surfaces	0.000	SQFT	0	600		

Construction Schedule

					Construction Trips				
Phase	Start Date	Completion Date	Work Days	# Workers/Day ¹	# Worker Trips/Day (In/Out) ²	# Vendors/Day	# Vendor Trips/Day (In/Out)	# Hauling/Concrete Trucks Per Day (In/Out)	# Hauling/Concrete Truck Trips Per Day (In/Out)
Site Preparation	1/1/2026	6/30/2026	129	50	100	6	12	0	0
Grading	7/1/2026	9/30/2026	66	60	120	6	12	25	50
Building Construction	10/1/2026	5/31/2030	957	60	120	50	100	0	0
			1152						

Double workers

Vendor Trips

Amount		
Panel Delivery Daily Trucks	1,200	Assumption
Maximum Trips/Day (In/Out)	40	Assumption
Steel Delivery Daily Trucks	840	Assumption
Maximum Trips/Day (In/Out)	28	Assumption
Misc. Electrical Components Daily Trucks	600	Assumption
Minimum Haul Trips/Day	20	Assumption
Water Vendor Daily Trucks	6	Assumption
Daily Water Truck Trips	12	Assumption
Daily Vendor trucks per day	50	
Maximum Vendor Trips/Day (In/Out)	100	Make this 100 trips/day

Grading		
Area (Acres)	600	
Haul trucks/Day	25	Assumption
Haul trips/Day (in/out)	50	Assumption Make this 50 trips/day (in/out)
Estimated Haul Days	66	From estimated schedule grading phase
Total Haul Trips (in/out)	3300	
Grading over area times	3	Assumption
Daily Graded Area (Acres)	30	30 acres assumed to be graded on a max day
Haul Truck Capacity (CY)	10	Assumption
Daily Haul Amount (CY)	500	calculation
Estimated Total Haul Amount Export (CY)	825000	calculation

Construction Equipment by Phase

Number of each piece of equipment
Hrs/day hours per day of operating per construction phase

Phase	Equipment Type	#	Hrs/day	Notes
Site Preparation	Graders	4	8	
Site Preparation	Rubber Tired Dozers	4	8	
Site Preparation	Tractors/Loaders/Backhoes	4	8	
Site Preparation	Offroad Truck	4	8	
Site Preparation	Generator Set	4	8	
Grading	Graders	4	8	
Grading	Rubber Tired Dozers	4	8	
Grading	Tractors/Loaders/Backhoes	8	8	
Grading	Offroad Truck	4	8	
Grading	Generator Set	4	8	
Grading	Scraper	4	8	
Building Construction	Cranes	4	8	
Building Construction	Forklifts	4	8	
Building Construction	Tractors/Loaders/Backhoes	4	8	
Building Construction	Welders	12	8	
Building Construction	Trencher	4	8	
Building Construction	Drig Rig	4	8	
Building Construction	Offroad Truck	4	8	
Building Construction	Generator Set	4	8	

Bump up equipment numbers one more time.

TIER 3 AND TIER 4 MODEL ASSUMPTIONS

Land Use Size	600 acres		
Earth Movement	825,000 cubic yards		
Construction Phase	Modeling Duration	Equipment	Vehicle Trips (One-way Trips)
Site Preparation	129 Days	Graders: 4 Rubber Tired Dozers: 4 Tractors/Loaders/Backhoes: 4 Offroad Truck: 4 Generator Set: 4	Worker: 100 Vendors: 12 Hauling: 0
Grading	66 Days	Graders: 4 Rubber Tired Dozers: 4 Tractors/Loaders/Backhoes: 8 Offroad Truck: 4 Generator Set: 4 Scraper: 4	Worker: 120 Vendors: 12 Hauling: 50
Construction	957 Days	Cranes: 4 Forklifts: 4 Tractors/Loaders/Backhoes: 4 Welders: 12 Trencher: 4 Drill Rig: 4 Offroad Truck: 4 Generator Set: 4	Worker: 120 Vendors: 100 Hauling: 0

SOURCE: ESA 2025

E-2 Construction Energy Calculations and Modeling

Santa Barbara County Utility-Scale Solar Amendments - Tier 3 and Tier 4 solar
Construction Energy Analysis

Annual Fuel Summary

Heavy-Duty Construction Equipment	
866,664	Total Project Consumption
196,358	Annual Consumption
Haul Trucks	
10,610	Total Project Consumption
2,404	Annual Consumption
Vendor Trucks	
69,120	Total Project Consumption
15,660	Annual Consumption
Workers	
42,170	Total Project Consumption
9,554	Annual Consumption
79,729	Project Consumption of diesel for Haul Trucks and Vendors
18,064	Annual Consumption
946,394	Total Gallons Diesel
42,170	Total Gallons Gasoline

4.41 Estimated Project Construction Duration (years)

214,422 Annual Average Gallons Diesel
9,554 Annual Average Gallons Gasoline

Santa Barbara County (2023)			Percent of Annual Project Compared to Santa Barbara County
Source	Fuel Type	Gallons	
Workers	Gasoline	166,000,000	0.0058%
Off-Road/Vendor/Haul Trucks	Diesel	29,052,000	0.738%

Notes:

Gasoline and diesel amounts from California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2024. Available at: https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed May 2021. Diesel is adjusted to account for retail (65.4%) and non-retail (34.6%) diesel sales.

Annual Electricity Summary

Temporary Construction Trailer - Electricity 40.94 MWh/year
Water Conveyance for Dust Control 36.23 MWh/year
Annual Total 77.16 MWh/year

2023 PG&E Total Sales (MWh) 72,933,000
Project percentage 0.00011%

Notes:

1 Source: https://s1.q4cdn.com/880135780/files/doc_financials/2024/ar/2023-Annual-Report-Master-from-10-K-web-ready-032524.pdf

Santa Barbara County Utility-Scale Solar Amendments - Tier 3 and Tier 4 solar

Total On-Road Fuel Consumption

gal/mile		
2026Hauling	Hauling	0.16075668
2026Vendor	Vendor	0.1359573
2026Worker	Worker	0.0364859
2027Hauling	Hauling	0.15844728
2027Vendor	Vendor	0.13458703
2027Worker	Worker	0.03577571
2028Hauling	Hauling	0.15595442
2028Vendor	Vendor	0.13307229
2028Worker	Worker	0.03513338
2029Hauling	Hauling	0.15353145
2029Vendor	Vendor	0.13159181
2029Worker	Worker	0.03454545

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	Regional Emissions (gallons)		
						gal/mile	gal/day	Total Gallons/yr
<u>Site Preparation 2026</u>	2026							
Total Haul Trips	-							
Hauling	0	129	8	20.00	15	0.16	0	0
Vendor	12	129	8	5.30	15	0.14	9	1,115
Worker	100	129	8	8.80	0	0.04	32	4,142
<u>Grading 2026</u>	2026							
Total Haul Trips	-							
Hauling	50	66	8	20.00	15	0.16	161	10,610
Vendor	12	66	8	5.30	15	0.14	9	571
Worker	120	66	8	8.80	0	0.04	39	2,543
<u>Building Construction 2026</u>	2026							
Total Haul Trips	-							
Hauling	0	66	8	20.00	15	0.16	0	0
Vendor	100	66	8	5.30	15	0.14	72	4,756
Worker	120	66	8	8.80	0	0.04	39	2,543
<u>Building Construction 2027</u>	2027							
Total Haul Trips	-							
Hauling	0	261	8	20.00	15	0.16	0	0
Vendor	100	261	8	5.30	15	0.13	71	18,617
Worker	120	261	8	8.80	0	0.04	38	9,860
<u>Building Construction 2028</u>	2028							
Total Haul Trips	-							
Hauling	0	260	8	20.00	15	0.16	0	0
Vendor	100	260	8	5.30	15	0.13	71	18,337
Worker	120	260	8	8.80	0	0.04	37	9,646
<u>Building Construction 2029</u>	2029							
Total Haul Trips	-							
Hauling	0	261	8	20.00	15	0.15	0	0
Vendor	100	261	8	5.30	15	0.13	70	18,203
Worker	120	261	8	8.80	0	0.03	36	9,521
<u>Building Construction 2030</u>	2030							
Total Haul Trips	-							
Hauling	0	109	8	20.00	15	0.15	0	0
Vendor	100	109	8	5.30	15	0.13	69	7,520
Worker	120	109	8	8.80	0	0.03	36	3,914

Source	Fuel Type	Total Fuel Use (gal)
Hauling	Diesel	10,610
Vendor	Diesel	69,120
Worker	Gasoline	42,170

Fuel Type	Total Fuel Use	Annual Fuel Use
Diesel	79,729	18,064
Gasoline	42,170	9,554

Duration of Construction	
Start	1/1/2026
End	5/31/2030
4.4	years

10/1/2026	12/31/2026
1/1/2027	12/31/2027
1/1/2028	12/31/2028
1/1/2029	12/31/2029
1/1/2030	5/31/2030

**Santa Barbara County Utility-Scale Solar Amendments - Tier 3 and Tier 4 solar
Construction Energy Analysis**

Off-Road Equipment

Equipment ≤ 100 hp

pounds diesel fuel/hp-hr (lb/hp-hr): ¹	0.408 lb/hp-hr
diesel density (lb/gal): ¹	7.11 lb/gal
diesel gallons/hp-hr:	0.0574 gal/hp-hr
Total <100	5,880,645 hp-hr
Total diesel gallons:	337,507 gal

Equipment > 100 hp

pounds diesel fuel/hp-hr (lb/hp-hr): ¹	0.367 lb/hp-hr
diesel density (lb/gal): ¹	7.11 lb/gal
diesel gallons/hp-hr:	0.0516 gal/hp-hr
Total >100	10,249,936 hp-hr
Total diesel gallons:	529,157 gal

Total diesel gallons (off-road equipment): 866,664 gal

[1. OFFROAD2017 Emission Factor Documentation](#)

Construction Phase	Equipment	Number	Hours/Day	HP	Load	Days	Total hp-hr
Site Preparation	Graders	4	8	148	0.41	129	250,487
Site Preparation	Rubber Tired Dozers	4	8	367	0.4	129	605,990
Site Preparation	Tractors/Loaders/Backhoes	4	8	84	0.37	129	128,298
Site Preparation	Off-Highway Trucks	4	8	376	0.38	129	589,809
Site Preparation	Generator Sets	4	8	14	0.74	129	42,766
Grading	Graders	4	8	148	0.41	66	128,156
Grading	Rubber Tired Dozers	4	8	367	0.4	66	310,042
Grading	Tractors/Loaders/Backhoes	8	8	84	0.37	66	131,282
Grading	Off-Highway Trucks	4	8	376	0.38	66	301,763
Grading	Generator Sets	4	8	14	0.74	66	21,880
Grading	Scrapers	4	8	423	0.48	66	428,820
Building Construction	Cranes	4	8	367	0.29	957	3,259,312
Building Construction	Forklifts	4	8	82	0.2	957	502,234
Building Construction	Welders	12	8	46	0.45	957	1,901,750
Building Construction	Tractors/Loaders/Backhoes	4	8	84	0.37	957	951,794
Building Construction	Trenchers	4	8	40	0.5	957	612,480
Building Construction	Bore/Drill Rigs	4	8	83	0.5	957	1,270,896
Building Construction	Off-Highway Trucks	4	8	376	0.38	957	4,375,557
Building Construction	Generator Sets	4	8	14	0.74	957	317,265
							-
							-
						Total >100	10,249,936
						Total <100	5,880,645

**Santa Barbara County Utility-Scale Solar Amendments - Tier 3 and Tier 4 solar
Construction Energy Analysis**

Temporary Construction Trailer - Electricity				
Land Use	Square Feet	Energy Use per year (kWh)	Total Energy Use (MWh)	Energy Use per SF
General Office	2,000	40,936	180.68	20.5
Note: Energy use per sf is derived from CalEEMod User Guide, Appendix G, Table G-28 for the Statewide average for General Office Building land use				

Notes

1 Electricity Emissions Factors default from California Air Resources Board, CalEEMod, Vers

**Santa Barbara County Utility-Scale Solar Amendments - Tier 3 and Tier 4 solar
Construction Energy**

Construction Water Energy Estimates

Source	Acreage/Day	Number of Days	Total Construction Water Use (Mgal)	Electricity Demand from Water Conveyance (MWh)	Average Annual Electricity Demand from Water Conveyance (MWh)
Site Prep - 2026	30.0	129	11.610	79.0	17.9
Grading - 2026	30.0	66	5.940	40.4	9.2
Building Construction - 2026	30.0	66	5.940	40.4	9.2
Building Construction - 2027	30.0	261	23.490	159.9	36.2
Building Construction - 2028	30.0	260	23.400	159.3	36.1
Building Construction - 2029	30.0	261	23.490	159.9	36.2
Building Construction - 2030	30.0	109	9.810	66.8	15.1
Total			103.680	705.7	36.2

CalEEMod Water Electricity Factors	Electricity Intensity Factor To Supply (kWh/Mgal)	Electricity Intensity Factor To Treat (kWh/Mgal)	Electricity Intensity Factor To Distribute (kWh/Mgal)	Electricity Intensity Factor For Wastewater Treatment (kWh/Mgal)
	3,044	725	1537	1501

Sources and Assumptions:

CalEEMod Appendix A, Pg. 8, based on given piece of equipment can pass over in an 8-hour workday

conservatively assumed acreage per day would be 3 times the project site acreage (3 times watering a day)

-Electricity Intensity Factors, South Coast - California Emissions Estimator Model (CalEEMod).

-Estimated construction water use assumed to be generally equivalent to landscape irrigation, based on a factor of 20.94 gallons per year per square foot of landscaped area within the Los Angeles area (Mediterranean climate), which assumes high water demand landscaping materials and an irrigation system efficiency of 85%. Factor is therefore $(20.94 \text{ GAL/SF/year}) \times (43,560 \text{ SF/acre}) / (365 \text{ days/year}) / (0.85) = 2,940 \text{ gallons/acre/day}$, rounded up to 3,000 gallons/acre/day.

(U.S. Department of Energy, Energy Efficiency & Renewable Energy, Federal Energy Management Program. "Guidelines for Estimating Unmetered Landscaping Water Use."

July 2010. Page 12, Table 4 - Annual Irrigation Factor – Landscaped Areas with High Water Requirements).

Santa Barbara County Utility-Scale Solar Amendments - Tier 1 and Tier 2 solar
Construction Energy Analysis

Annual Fuel Summary

Heavy-Duty Construction Equipment	
135,361	Total Project Consumption
47,782	Annual Consumption
Haul Trucks	
2,765	Total Project Consumption
976	Annual Consumption
Vendor Trucks	
22,998	Total Project Consumption
8,118	Annual Consumption
Workers	
13,918	Total Project Consumption
4,913	Annual Consumption
25,763	Project Consumption of diesel for Haul Trucks and Vendors
9,094	Annual Consumption
161,124	Total Gallons Diesel
13,918	Total Gallons Gasoline

2.83 Estimated Project Construction Duration (years)

56,876 Annual Average Gallons Diesel
4,913 Annual Average Gallons Gasoline

Santa Barbara County (2023)			Percent of Annual Project Compared to Santa Barbara County
Source	Fuel Type	Gallons	
Workers	Gasoline	166,000,000	0.0030%
Off-Road/Vendor/Haul Trucks	Diesel	29,052,000	0.196%

Notes:

Gasoline and diesel amounts from California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2024. Available at: https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed May 2021. Diesel is adjusted to account for retail (65.4%) and non-retail (34.6%) diesel sales.

Annual Electricity Summary

Temporary Construction Trailer - Electricity	40.94 MWh/year
Water Conveyance for Dust Control	28.21 MWh/year
Annual Total	69.14 MWh/year

2023 PG&E Total Sales (MWh)	72,933,000
Project percentage	0.00009%

Notes:

1 Source: https://s1.q4cdn.com/880135780/files/doc_financials/2024/ar/2023-Annual-Report-Master-from-10-K-web-ready-032524.pdf

Santa Barbara County Utility-Scale Solar Amendments - Tier 1 and Tier 2 solar

Total On-Road Fuel Consumption

gal/mile		
2026Hauling	Hauling	0.16075668
2026Vendor	Vendor	0.1359573
2026Worker	Worker	0.0364859
2027Hauling	Hauling	0.15844728
2027Vendor	Vendor	0.13458703
2027Worker	Worker	0.03577571
2028Hauling	Hauling	0.15595442
2028Vendor	Vendor	0.13307229
2028Worker	Worker	0.03513338
2029Hauling	Hauling	0.15353145
2029Vendor	Vendor	0.13159181
2029Worker	Worker	0.03454545

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	Regional Emissions (gallons)		
						gal/mile	gal/day	Total Gallons/yr
<u>Site Preparation 2026</u>	2026							
Total Haul Trips	-							
Hauling	0	86	8	20.00	15	0.16	0	0
Vendor	12	86	8	5.30	15	0.14	9	744
Worker	52	86	8	8.80	0	0.04	17	1,436
<u>Grading 2026</u>	2026							
Total Haul Trips	-							
Hauling	20	43	8	20.00	15	0.16	64	2,765
Vendor	12	43	8	5.30	15	0.14	9	372
Worker	60	43	8	8.80	0	0.04	19	828
<u>Building Construction 2026</u>	2026							
Total Haul Trips	-							
Hauling	0	132	8	20.00	15	0.16	0	0
Vendor	50	132	8	5.30	15	0.14	36	4,756
Worker	60	132	8	8.80	0	0.04	19	2,543
<u>Building Construction 2027</u>	2027							
Total Haul Trips	-							
Hauling	0	261	8	20.00	15	0.16	0	0
Vendor	50	261	8	5.30	15	0.13	36	9,309
Worker	60	261	8	8.80	0	0.04	19	4,930
<u>Building Construction 2028</u>	2026							
Total Haul Trips	-							
Hauling	0	217	8	20.00	15	0.16	0	0
Vendor	50	217	8	5.30	15	0.14	36	7,818
Worker	60	217	8	8.80	0	0.04	19	4,180

Source	Fuel Type	Total Fuel Use (gal)
Hauling	Diesel	2,765
Vendor	Diesel	22,998
Worker	Gasoline	13,918

Fuel Type	Total Fuel Use	Annual Fuel Use
Diesel	25,763	9,094
Gasoline	13,918	4,913

Duration of Construction	
Start	1/1/2026
End	10/31/2028
2.8	years

7/1/2026	12/31/2026
1/1/2027	12/31/2027
1/1/2028	10/31/2028

Off-Road Equipment

pounds diesel fuel/hp-hr (lb/hp-hr): ¹	0.408 lb/hp-hr
diesel density (lb/gal): ¹	7.11 lb/gal
diesel gallons/hp-hr:	0.0574 gal/hp-hr
Total <100	938,885 hp-hr
Total diesel gallons:	53,885 gal

pounds diesel fuel/hp-hr (lb/hp-hr): ¹	0.367	lb/hp-hr
diesel density (lb/gal): ¹	7.11	lb/gal
diesel gallons/hp-hr:	0.0516	gal/hp-hr
Total >100	1,578,204	hp-hr
Total diesel gallons:	81,475	gal

1. OFFROAD2017 Emission Factor Documentation

[illegible]

Santa Barbara County Utility-Scale Solar Amendments - Tier 1 and Tier 2 solar
Construction Energy Analysis

Temporary Construction Trailer - Electricity				
Land Use	Square Feet	Energy Use per year (kWh)	Total Energy Use (MWh)	Energy Use per SF
General Office	2,000	40,936	115.97	20.5
Note: Energy use per sf is derived from CalEEMod User Guide, Appendix G, Table G-28 for the Statewide average for General Office Building land use				

Notes

- 1 Electricity Emissions Factors default from California Air Resources Board, CalEEMod, Version 2022.1.

**Santa Barbara County Utility-Scale Solar Amendments - Tier 1 and Tier 2 solar
Construction Energy**

Construction Water Energy Estimates

Source	Acreage/Day	Number of Days	Total Construction Water Use (Mgal)	Electricity Demand from Water Conveyance (MWh)	Average Annual Electricity Demand from Water Conveyance (MWh)
Site Prep - 2026	15.0	86	3.870	26.3	9.3
Grading - 2026	15.0	43	1.935	13.2	4.6
Building Construction - 2026	15.0	132	5.940	40.4	14.3
Building Construction - 2027	15.0	261	11.745	79.9	28.2
Building Construction - 2028	15.0	217	9.765	66.5	23.5
Total			33.255	226.4	28.2

CalEEMod Water Electricity Factors	Electricity Intensity Factor To Supply (kWh/Mgal)	Electricity Intensity Factor To Treat (kWh/Mgal)	Electricity Intensity Factor To Distribute (kWh/Mgal)	Electricity Intensity Factor For Wastewater Treatment (kWh/Mgal)
	3,044	725	1537	1501

Sources and Assumptions:

CalEEMod Appendix A, Pg. 8, based on given piece of equipment can pass over in an 8-hour workday

conservatively assumed acreage per day would be 3 times the project site acreage (3 times watering a day)

-Electricity Intensity Factors, South Coast - California Emissions Estimator Model (CalEEMod).

-Estimated construction water use assumed to be generally equivalent to landscape irrigation, based on a factor of 20.94 gallons per year per square foot of landscaped area within the Los Angeles area (Mediterranean climate), which assumes high water demand landscaping materials and an irrigation system efficiency of 85%. Factor is therefore $(20.94 \text{ GAL/SF/year}) \times (43,560 \text{ SF/acre}) / (365 \text{ days/year}) / (0.85) = 2,940 \text{ gallons/acre/day}$, rounded up to 3,000 gallons/acre/day.

(U.S. Department of Energy, Energy Efficiency & Renewable Energy, Federal Energy Management Program. "Guidelines for Estimating Unmetered Landscaping Water Use."

July 2010. Page 12, Table 4 - Annual Irrigation Factor – Landscaped Areas with High Water Requirements).

E-3 Operational Energy Output Files



Caution: Photovoltaic system performance predictions calculated by PVWatts® include many inherent assumptions and uncertainties and do not reflect variations between PV technologies nor site-specific characteristics except as represented by PVWatts® inputs. For example, PV modules with better performance are not differentiated within PVWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at //sam.nrel.gov) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

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The energy output range is based on analysis of 30 years of historical weather data, and is intended to provide an indication of the possible interannual variability in generation for a Fixed (open rack) PV system at this location.

RESULTS

1,755,568 kWh/Year*

System output may range from 1,686,749 to 1,795,946 kWh per year near this location.

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)
January	4.24	105,498
February	4.78	107,496
March	6.05	146,662
April	6.97	164,154
May	7.60	180,230
June	7.93	180,310
July	7.76	180,289
August	7.59	175,808
September	7.06	160,113
October	5.73	137,847
November	4.80	113,587
December	4.12	103,573
Annual	6.22	1,755,567

Location and Station Identification

Requested Location	5360 Foxen Canyon Rd, Los Olivos, CA 93441		
Weather Data Source	Lat, Lng: 34.73, -120.14	0.6 mi	
Latitude	34.73° N		
Longitude	120.14° W		

PV System Specifications

DC System Size	1000 kW					
Module Type	Standard					
Array Type	Fixed (open rack)					
System Losses	14.08%					
Array Tilt	20°					
Array Azimuth	180°					
DC to AC Size Ratio	1.2					
Inverter Efficiency	96%					
Ground Coverage Ratio	0.4					
Albedo	From weather file					
Bifacial	No (0)					
Monthly Irradiance Loss	Jan	Feb	Mar	Apr	May	June
	0%	0%	0%	0%	0%	0%
Monthly Irradiance Loss	July	Aug	Sept	Oct	Nov	Dec
	0%	0%	0%	0%	0%	0%

Performance Metrics

DC Capacity Factor	20.0%
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Cautions: Photovoltaic system performance predictions calculated by PVWatts® include many inherent assumptions and uncertainties and do not reflect variations between PV technologies nor site-specific characteristics except as represented by PVWatts® inputs. For example, PV modules with better performance are not differentiated within PVWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at //sam.nrel.gov) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

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The energy output range is based on analysis of 30 years of historical weather data, and is intended to provide an indication of the possible interannual variability in generation for a Fixed (open rack) PV system at this location.

RESULTS

87,776,289 kWh/Year*

System output may range from 84,335,458 to 89,795,143 kWh per year near this location.

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)
January	4.24	5,274,792
February	4.78	5,374,658
March	6.05	7,332,917
April	6.97	8,207,526
May	7.60	9,011,258
June	7.93	9,015,254
July	7.76	9,014,207
August	7.59	8,790,186
September	7.06	8,005,470
October	5.73	6,892,203
November	4.80	5,679,259
December	4.12	5,178,560
Annual	6.22	87,776,290

Location and Station Identification

Requested Location	5360 Foxen Canyon Rd, Los Olivos, CA 93441		
Weather Data Source	Lat, Lng: 34.73, -120.14	0.6 mi	
Latitude	34.73° N		
Longitude	120.14° W		

PV System Specifications

DC System Size	50000 kW					
Module Type	Standard					
Array Type	Fixed (open rack)					
System Losses	14.08%					
Array Tilt	20°					
Array Azimuth	180°					
DC to AC Size Ratio	1.2					
Inverter Efficiency	96%					
Ground Coverage Ratio	0.4					
Albedo	From weather file					
Bifacial	No (0)					
Monthly Irradiance Loss	Jan	Feb	Mar	Apr	May	June
	0%	0%	0%	0%	0%	0%
	July	Aug	Sept	Oct	Nov	Dec
	0%	0%	0%	0%	0%	0%

Performance Metrics

DC Capacity Factor	20.0%
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Appendix F

Greenhouse Gas Worksheets and Calculations

F-1 Assumptions

Tier 1 and Tier 2 Assumptions
Construction and Operations Assumptions

Site (acres): 5
Lot Area (sqft): 217,800
Location: Santa Barbara County
CEC Forecasting Climate Zone: 11
Utility: SCE
Operational Year: 2026

Project Land Uses

Land Use	CalEEMod LandUse Type	CalEEMod LandUse Subtype	Amount	Unit	Building sq.ft.	Acres		Landscaping sf
Project Site	Parking	Other non-asphalt surfaces	0	SQFT	0	5		
Land Use Type Totals	Parking	Other non-asphalt surfaces	0.000	SQFT	0	5		

Construction Schedule

Construction Trips

Phase	Start Date	Completion Date	Work Days	# Workers/Day	# Worker Trips/Day (In/Out) ²	# Vendors/Day	# Vendor Trips/Day (In/Out)	# Hauling/Concrete Trucks Per Day (In/Out)	# Hauling/Concrete Truck Trips Per Day (In/Out)
Site Preparation	1/1/2026	4/30/2026	86	26	52	6	12	0	0
Grading	5/1/2026	6/30/2026	43	30	60	6	12	10	20
Building Construction	7/1/2026	10/31/2028	610	30	60	25	50	0	0
			739						

Vendor Trips

	Amount
Panel Delivery Daily Trucks	10
Maximum Trips/Day (In/Out)	20
Steel Delivery Daily Trucks	7
Maximum Trips/Day (In/Out)	14
Misc. Electrical Components Daily Trucks	5
Minimum Haul Trips/Day	10
Water Vendor Trips/Day	6
Daily Vendor Trucks per day	25
Maximum Vendor Trips/Day (In/Out)	50

Grading	
Area (Acres)	5
Haul trucks/Day	10
Haul trips/Day (in/out)	20
Estimated Haul Days	43
Total Haul Trips (in/out)	860
Grading over area times	3
Daily Graded Area (Acres)	15
Haul Truck Capacity (CY)	10
Daily Haul Amount (CY)	200
Estimated Total Haul Amount Export (CY)	86000

Assumption
Assumption
From estimated schedule grading phase

Assumption

Assumption
calculation
calculation

Construction Equipment by Phase

Number of each piece of equipment
Hrs/day hours per day of operating per construction phase

Phase	Equipment Type	#	Hrs/day	Notes
Site Preparation	Graders	1	8	
Site Preparation	Rubber Tired Dozers	1	8	
Site Preparation	Tractors/Loaders/Backhoes	1	8	
Site Preparation	Offroad Truck	1	8	
Site Preparation	Generator Set	1	8	
Grading	Graders	1	8	
Grading	Rubber Tired Dozers	1	8	
Grading	Tractors/Loaders/Backhoes	2	8	
Grading	Offroad Truck	1	8	
Grading	Generator Set	1	8	
Grading	Scraper	2	8	
Building Construction	Cranes	1	8	
Building Construction	Forklifts	1	8	
Building Construction	Tractors/Loaders/Backhoes	1	8	
Building Construction	Welders	3	8	
Building Construction	Trencher	1	8	
Building Construction	Drig Rig	1	8	
Building Construction	Offroad Truck	1	8	
Building Construction	Generator Set	1	8	

TIER 1 AND TIER 2 MODEL ASSUMPTIONS

Land Use Size	5 acres		
Earth Movement	86,000 cubic yards		
Construction Phase	Modeling Duration	Equipment	Vehicle Trips (One-Way Trips)
Site Preparation	86 Days	Graders: 1 Rubber Tired Dozers: 1 Tractors/Loaders/Backhoes: 1 Offroad Truck: 1 Generator Set: 1	Worker: 52 Vendors: 12 Hauling: 0
Grading	43 Days	Graders: 1 Rubber Tired Dozers: 1 Tractors/Loaders/Backhoes: 2 Offroad Truck: 1 Generator Set: 1 Scraper: 2	Worker: 60 Vendors: 12 Hauling: 20
Construction	610 Days	Cranes: 1 Forklifts: 1 Tractors/Loaders/Backhoes: 1 Welders: 3 Trencher: 1 Drill Rig: 1 Offroad Truck: 1 Generator Set: 1	Worker: 60 Vendors: 50 Hauling: 0
SOURCE: ESA 2025			

Tier 3 and Tier 4 Assumptions
Construction and Operations Assumptions

Site (acres): 600
Lot Area (sqft): 26,136,000
Location: Santa Barbara County
CEC Forecasting Climate Zone: 11
Utility: SCE
Operational Year: 2026

Project Land Uses

Land Use	CalEEMod LandUse Type	CalEEMod LandUse Subtype	Amount	Unit	Building sq.ft.	Acres		Landscaping sf
Project Siite	Parking	Other non-asphalt surfaces	0	SQFT	0	600		
Land Use Type Totals								
	Parking	Other non-asphalt surfaces	0.000	SQFT	0	600		

Construction Schedule

					Construction Trips				
Phase	Start Date	Completion Date	Work Days	# Workers/Day ¹	# Worker Trips/Day (In/Out) ²	# Vendors/Day	# Vendor Trips/Day (In/Out)	# Hauling/Concrete Trucks Per Day (In/Out)	# Hauling/Concrete Truck Trips Per Day (In/Out)
Site Preparation	1/1/2026	6/30/2026	129	50	100	6	12	0	0
Grading	7/1/2026	9/30/2026	66	60	120	6	12	25	50
Building Construction	10/1/2026	5/31/2030	957	60	120	50	100	0	0
			1152						

Double workers

Vendor Trips

Amount		
Panel Delivery Daily Trucks	1,200	Assumption
Maximum Trips/Day (In/Out)	40	Assumption
Steel Delivery Daily Trucks	840	Assumption
Maximum Trips/Day (In/Out)	28	Assumption
Misc. Electrical Components Daily Trucks	600	Assumption
Minimum Haul Trips/Day	20	Assumption
Water Vendor Daily Trucks	6	Assumption
Daily Water Truck Trips	12	Assumption
Daily Vendor trucks per day	50	
Maximum Vendor Trips/Day (In/Out)	100	Make this 100 trips/day

Grading		
Area (Acres)	600	
Haul trucks/Day	25	Assumption
Haul trips/Day (in/out)	50	Assumption Make this 50 trips/day (in/out)
Estimated Haul Days	66	From estimated schedule grading phase
Total Haul Trips (in/out)	3300	
Grading over area times	3	Assumption
Daily Graded Area (Acres)	30	30 acres assumed to be graded on a max day
Haul Truck Capacity (CY)	10	Assumption
Daily Haul Amount (CY)	500	calculation
Estimated Total Haul Amount Export (CY)	825000	calculation

Construction Equipment by Phase

Number of each piece of equipment
Hrs/day hours per day of operating per construction phase

Phase	Equipment Type	#	Hrs/day	Notes
Site Preparation	Graders	4	8	
Site Preparation	Rubber Tired Dozers	4	8	
Site Preparation	Tractors/Loaders/Backhoes	4	8	
Site Preparation	Offroad Truck	4	8	
Site Preparation	Generator Set	4	8	
Grading	Graders	4	8	
Grading	Rubber Tired Dozers	4	8	
Grading	Tractors/Loaders/Backhoes	8	8	
Grading	Offroad Truck	4	8	
Grading	Generator Set	4	8	
Grading	Scraper	4	8	
Building Construction	Cranes	4	8	
Building Construction	Forklifts	4	8	
Building Construction	Tractors/Loaders/Backhoes	4	8	
Building Construction	Welders	12	8	
Building Construction	Trencher	4	8	
Building Construction	Drig Rig	4	8	
Building Construction	Offroad Truck	4	8	
Building Construction	Generator Set	4	8	

Bump up equipment numbers one more time.

TIER 3 AND TIER 4 MODEL ASSUMPTIONS

Land Use Size	600 acres		
Earth Movement	825,000 cubic yards		
Construction Phase	Modeling Duration	Equipment	Vehicle Trips (One-way Trips)
Site Preparation	129 Days	Graders: 4 Rubber Tired Dozers: 4 Tractors/Loaders/Backhoes: 4 Offroad Truck: 4 Generator Set: 4	Worker: 100 Vendors: 12 Hauling: 0
Grading	66 Days	Graders: 4 Rubber Tired Dozers: 4 Tractors/Loaders/Backhoes: 8 Offroad Truck: 4 Generator Set: 4 Scraper: 4	Worker: 120 Vendors: 12 Hauling: 50
Construction	957 Days	Cranes: 4 Forklifts: 4 Tractors/Loaders/Backhoes: 4 Welders: 12 Trencher: 4 Drill Rig: 4 Offroad Truck: 4 Generator Set: 4	Worker: 120 Vendors: 100 Hauling: 0

SOURCE: ESA 2025

F-2 Construction Greenhouse Gas Calculations and Modeling

Santa Barbara County Utility-Scale Solar Amendments
GHG Construction Summary - Tier 1 and Tier 2, 5 Acre Project

	MTCO2/YR				
Year	On-Site Emissions	Construction Office	Water	Mobile Emissions	Annual Total
2026	465.77	9.89	16.73	138.31	631
2027	484.53	9.89	16.73	148.33	659
2028	404.99	8.26	13.91	121.04	548
Grand Total	1355.29	28.04	47.37	407.68	1,838
SBAPCD GHG Screening Threshold (MTCO2)					10,000
Exceed Theshold?					No

Santa Barbara County Utility-Scale Solar Amendments
Construction GHG Analysis - Tier 1 and Tier 2, 5 Acre Project

Temporary Construction Trailer - Electricity						
Land Use	Square Feet	Energy Use per year (kWh)	Total Energy Use (kWh)	GHG Emissions /year (MTCO2e)	Total GHG Emissions for Construction Duration	Energy Use per SF
General Office	2,000	40,936	115,967.21			20.5
Note: Energy use per sf is derived from CalEEMod User Guide, Appendix G, Table G-28 for the Statewide average for General Office Building land use						

Electricity Emission Factor	Electricity Emission Factor	Total GHG Emissions Per Year	Year	Proportion of Year Worked	GHG Emissions Per Construction Year
(MT CO2/MWh)	(lbs CO2/MWh)	9.92	2026	1.00	9.89
0.24	531.98		2027	1.00	9.89
(MT CH4/MWh)	(lbs CH4/MWh)		2028	0.83	8.26
1.50E-05	0.033				
(MT N2O/MWh)	(lbs N2O/MWh)				
1.81E-06	0.004				

1 Electricity Emissions Factors default from CalEEMod.

Santa Barbara County Utility-Scale Solar Amendments
Construction GHG Analysis - Tier 1 and Tier 2, 5 Acre Project

Construction Water GHG Estimates

Source	Acreage/Day	Number of Days	Total Construction Water Use (Mgal)	Electricity Demand from Water Conveyance (MWh)	
Site Prep - 2026	15.0	86	3.870	24.0	
Grading - 2026	15.0	43	1.935	12.0	
Building Construction - 2026	15.0	132	5.940	36.8	
Building Construction - 2027	15.0	261	11.745	72.7	
Building Construction - 2028	15.0	217	9.765	60.5	
Total			33.255	205.9	

CalEEMod Water Electricity Factors	Electricity Intensity Factor To Supply (kWh/Mgal)	Electricity Intensity Factor To Treat (kWh/Mgal)	Electricity Intensity Factor To Distribute (kWh/Mgal)	Electricity Intensity Factor For Wastewater Treatment (kWh/Mgal)
	3,044	111	1537	1501

Total Construction Water	Electricity Emission (MT CO2e/MWh)	Electricity Emission (lbs CO2e/MWh)
47.37	0.23	508.97

Year	Water GHG
2026	16.73
2027	16.73
2028	13.91
	47.37

Sources and Assumptions:
CalEEMod Appendix A, Pg. 8, based on given piece of equipment can pass over in an 8-hour workday
-Electricity Intensity Factors - California Emissions Estimator Model (CalEEMod).
-Estimated construction water use assumed to be generally equivalent to landscape irrigation, based on a factor of 20.94 gallons per year per square foot of

Santa Barbara County Utility-Scale Solar Amendments
Construction GHG Analysis - Tier 3 and Tier 4, 600 acre Project

Temporary Construction Trailer - Electricity					
Land Use	Square Feet	Energy Use per year (kWh)	Total Energy Use (kWh)	GHG Emissions /year (MTCO2e)	Total GHG Emissions for Construction Duration
General Office	2,000	40,936	180,680.05		20.5

Note: Energy use per sf is derived from CalEEMod User Guide, Appendix G, Table G-28 for the Statewide average for General Office Building land use

Electricity Emission Factor	Electricity Emission Factor	Total GHG Emissions Per Year	Year	Proportion of Year Worked	GHG Emissions Per Construction Year
(MT CO2/MWh)	(lbs CO2/MWh)	9.92	2026	1.00	9.89
0.24	531.98		2027	1.00	9.89
(MT CH4/MWh)	(lbs CH4/MWh)		2028	1.00	9.92
1.50E-05	0.033		2029	1.00	9.89
(MT N2O/MWh)	(lbs N2O/MWh)		2030	0.41	4.07
1.81E-06	0.004				

1 Electricity Emissions Factors default from CalEEMod

Santa Barbara County Utility-Scale Solar Amendments
Construction GHG Analysis - Tier 3 and Tier 4, 600 acre Project

Construction Water GHG Estimates

Source	Acreage/Day	Number of Days	Total Construction Water Use (Mgal)	Electricity Demand from Water Conveyance (MWh)	
Site Prep - 2026	30.0	129	11.610	71.9	
Grading - 2026	30.0	66	5.940	36.8	
Building Construction - 2026	30.0	66	5.940	36.8	
Building Construction - 2027	30.0	261	23.490	145.5	
Building Construction - 2028	30.0	260	23.400	144.9	
Building Construction - 2029	30.0	261	23.490	145.5	
Building Construction - 2030	30.0	109	9.810	60.8	
Total			103.680	642.1	

CalEEMod Water Electricity Factors	Electricity Intensity Factor To Supply (kWh/Mgal)	Electricity Intensity Factor To Treat (kWh/Mgal)	Electricity Intensity Factor To Distribute (kWh/Mgal)	Electricity Intensity Factor For Wastewater Treatment (kWh/Mgal)
	3,044	111	1537	1501

Total Construction Water	Electricity Emission	Electricity Emission
147.68	(MT CO2e/MWh)	(lbs CO2e/MWh)
	0.23	508.97

Year	Water GHG
2026	33.46
2027	33.46
2028	33.33
2029	33.46
2030	13.97

100.25

Sources and Assumptions:

CalEEMod Appendix A, Pg. 8, based on given piece of equipment can pass over in an 8-hour workday

-Electricity Intensity Factors - California Emissions Estimator Model (CalEEMod).

-Estimated construction water use assumed to be generally equivalent to landscape irrigation, based on a factor of 20.94 gallons per year per square foot of

- Assumes the max acreage of watering is 30 acres in a 8-hour work day

F-3 Operational Greenhouse Gas Calculations

Santa Barbara County Solar
Displaced GHG Estimates Based on Solar Project Capacity

Solar Project Capacity (MW)	PVWatt NREL Annual System Output (MW)	Dispalced GHG Emissions (MTons)			
		PG&E		SCE	
		no BESS	with BESS	no BESS	with BESS
1	1756	10	8	391	321
50	87776	478	392	19,546	16,027

Utility Provider	Energy Intensity (lb CO2e/MWh)	Source
PG&E	12	PG&E 2023 Power Content Label: https://www.energy.ca.gov/filebrowser/download/7281
SCE	491	SCE 2023 Power Content Label: https://www.energy.ca.gov/filebrowser/download/7362
ESS Efficiency Rate	82%	Source: The Electricity Forum (TEF), 2025. Utility-scale batteries and pumped storage return about 80% of the electricity they store. Webpage: https://electricityforum.com/news/energy-storage-
Conversion Factor lbs/Metric Tons	2205	



Cautions: Photovoltaic system performance predictions calculated by PVWatts® include many inherent assumptions and uncertainties and do not reflect variations between PV technologies nor site-specific characteristics except as represented by PVWatts® inputs. For example, PV modules with better performance are not differentiated within PVWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at //sam.nrel.gov) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

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The energy output range is based on analysis of 30 years of historical weather data, and is intended to provide an indication of the possible interannual variability in generation for a Fixed (open rack) PV system at this location.

RESULTS

87,776,289 kWh/Year*

System output may range from 84,335,458 to 89,795,143 kWh per year near this location.

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)
January	4.24	5,274,792
February	4.78	5,374,658
March	6.05	7,332,917
April	6.97	8,207,526
May	7.60	9,011,258
June	7.93	9,015,254
July	7.76	9,014,207
August	7.59	8,790,186
September	7.06	8,005,470
October	5.73	6,892,203
November	4.80	5,679,259
December	4.12	5,178,560
Annual	6.22	87,776,290

Location and Station Identification

Requested Location	5360 Foxen Canyon Rd, Los Olivos, CA 93441		
Weather Data Source	Lat, Lng: 34.73, -120.14	0.6 mi	
Latitude	34.73° N		
Longitude	120.14° W		

PV System Specifications

DC System Size	50000 kW					
Module Type	Standard					
Array Type	Fixed (open rack)					
System Losses	14.08%					
Array Tilt	20°					
Array Azimuth	180°					
DC to AC Size Ratio	1.2					
Inverter Efficiency	96%					
Ground Coverage Ratio	0.4					
Albedo	From weather file					
Bifacial	No (0)					
Monthly Irradiance Loss	Jan	Feb	Mar	Apr	May	June
	0%	0%	0%	0%	0%	0%
	July	Aug	Sept	Oct	Nov	Dec
	0%	0%	0%	0%	0%	0%

Performance Metrics

DC Capacity Factor	20.0%
--------------------	-------



Caution: Photovoltaic system performance predictions calculated by PVWatts® include many inherent assumptions and uncertainties and do not reflect variations between PV technologies nor site-specific characteristics except as represented by PVWatts® inputs. For example, PV modules with better performance are not differentiated within PVWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at //sam.nrel.gov) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

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The energy output range is based on analysis of 30 years of historical weather data, and is intended to provide an indication of the possible interannual variability in generation for a Fixed (open rack) PV system at this location.

RESULTS

1,755,568 kWh/Year*

System output may range from 1,686,749 to 1,795,946 kWh per year near this location.

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)
January	4.24	105,498
February	4.78	107,496
March	6.05	146,662
April	6.97	164,154
May	7.60	180,230
June	7.93	180,310
July	7.76	180,289
August	7.59	175,808
September	7.06	160,113
October	5.73	137,847
November	4.80	113,587
December	4.12	103,573
Annual	6.22	1,755,567

Location and Station Identification

Requested Location	5360 Foxen Canyon Rd, Los Olivos, CA 93441
Weather Data Source	Lat, Lng: 34.73, -120.14 0.6 mi
Latitude	34.73° N
Longitude	120.14° W

PV System Specifications

DC System Size	1000 kW
Module Type	Standard
Array Type	Fixed (open rack)
System Losses	14.08%
Array Tilt	20°
Array Azimuth	180°
DC to AC Size Ratio	1.2
Inverter Efficiency	96%
Ground Coverage Ratio	0.4
Albedo	From weather file
Bifacial	No (0)
Monthly Irradiance Loss	Jan Feb Mar Apr May June 0% 0% 0% 0% 0% 0%
	July Aug Sept Oct Nov Dec 0% 0% 0% 0% 0% 0%

Performance Metrics

DC Capacity Factor	20.0%
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Building a cleaner, safer energy future

As a PG&E customer, you are receiving some of the nation's cleanest energy. Using the California Energy Commission's methodology, PG&E delivered electricity to customers that was nearly **100% greenhouse-gas emissions free**, with approximately 33% from state-qualified renewable resources.

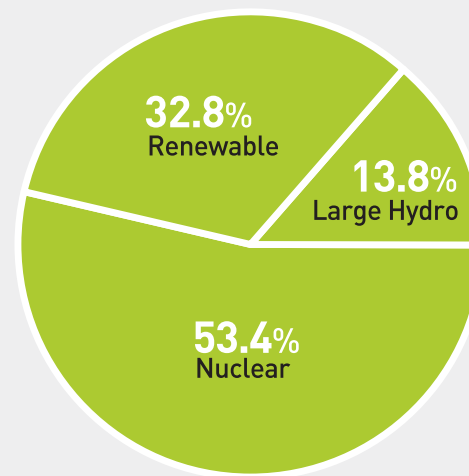


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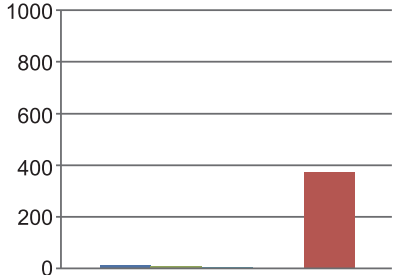
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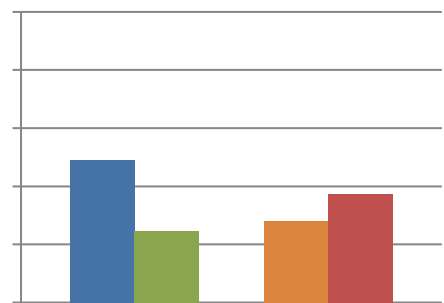
2023 POWER MIX

PG&E-owned generation and power purchases



■ Greenhouse gas free and/or renewable resources

2023 POWER CONTENT LABEL											
Pacific Gas and Electric Company											
www.pge.com/billinserts											
Greenhouse Gas Emissions Intensity (lbs CO ₂ e/MWh)					Energy Resources	Base Plan	50% Solar Choice	100% Solar Choice	Green Saver	2023 CA Power Mix	
Base Plan	50% Solar Choice	100% Solar Choice	Green Saver	2023 CA Utility Average	Eligible Renewable¹ Biomass & Biowaste Geothermal Eligible Hydroelectric Solar Wind Coal Large Hydroelectric Natural Gas Nuclear Other Unspecified Power² TOTAL	32.8%	65.5%	100.0%	100.0%	36.9%	
12	6	0	0	373		3.4%	1.8%	0.0%	0.0%	2.1%	
Base Plan 50% Solar Choice 100% Solar Choice Green Saver 2023 CA Utility Average 						Biomass & Biowaste	0.3%	0.2%	0.0%	0.0%	4.8%
						Eligible Hydroelectric	2.5%	1.3%	0.0%	0.0%	1.8%
						Solar	20.2%	59.0%	100.0%	100.0%	17.0%
						Wind	6.3%	3.2%	0.0%	0.0%	11.2%
						Coal	0.0%	0.0%	0.0%	0.0%	1.8%
						Large Hydroelectric	13.8%	7.1%	0.0%	0.0%	11.7%
						Natural Gas	0.0%	0.0%	0.0%	0.0%	36.6%
						Nuclear	53.4%	27.4%	0.0%	0.0%	9.3%
Other	0.0%	0.0%	0.0%	0.0%	0.1%						
Unspecified Power ²	0.0%	0.0%	0.0%	0.0%	3.7%						
					TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	
Percentage of Retail Sales Covered by Retired Unbundled RECs ³ :						5%	0%	0%	0%		
¹The eligible renewable percentage above does not reflect RPS compliance, which is determined using a different methodology. ²Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source. ³Renewable energy credits (RECs) are tracking instruments issued for renewable generation. Unbundled renewable energy credits (RECs) represent renewable generation that was not delivered to serve retail sales. Unbundled RECs are not reflected in the power mix or GHG emissions intensities above.											
For specific information about this electricity portfolio, contact:						Pacific Gas and Electric Company: 1-800-743-5000					
For general information about the Power Content Label, visit:						https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-program					
For additional questions, please contact the California Energy Commission at:						Toll-free in California: 844-454-2906 Outside California: 916-653-0237					

2023 POWER CONTENT LABEL											
Southern California Edison Company											
www.sce.com											
Greenhouse Gas Emissions Intensity (lbs CO ₂ e/MWh)					Energy Resources	SCE Power Mix	SCE Green Rate 50% Option	SCE Green Rate 100% Option	SCE Community Renewable	2023 CA Power Mix	
SCE Power Mix	SCE Green Rate 50% Option	SCE Green Rate 100% Option	SCE Community Renewable	2023 CA Utility Average	Eligible Renewable ¹	37.6%	68.7%	100.0%	64.6%	36.9%	
1000 800 600 400 200 0 SCE Power Mix SCE Green Rate 50% Option SCE Green Rate 100% Option SCE Community Renewable 2023 CA Utility Average 	491	246	0	279	373	Biomass & Biowaste	0.1%	0.1%	0.0%	0.1%	2.1%
	Geothermal	5.2%	2.6%	0.0%	3.0%	4.8%					
	Eligible Hydroelectric	0.7%	0.4%	0.0%	0.4%	1.8%					
	Solar	19.8%	59.8%	100.0%	54.5%	17.0%					
	Wind	11.7%	5.9%	0.0%	6.6%	11.2%					
	Coal	0.0%	0.0%	0.0%	0.0%	1.8%					
	Large Hydroelectric	4.5%	2.2%	0.0%	2.5%	11.7%					
	Natural Gas	20.0%	10.0%	0.0%	11.3%	36.6%					
	Nuclear	9.1%	4.5%	0.0%	5.1%	9.3%					
	Other	0.1%	0.0%	0.0%	0.0%	0.1%					
	Unspecified Power ²	28.8%	14.5%	0.0%	16.4%	3.7%					
	TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%					
Percentage of Retail Sales Covered by Retired Unbundled RECs ³ :						0%	0%	0%	0%		
¹ The eligible renewable percentage above does not reflect RPS compliance, which is determined using a different methodology.											
² Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.											
³ Renewable energy credits (RECs) are tracking instruments issued for renewable generation. Unbundled renewable energy credits (RECs) represent renewable generation that was not delivered to serve retail sales. Unbundled RECs are not reflected in the power mix or GHG emissions intensities above.											
For specific information about this electricity portfolio, contact:						Southern California Edison Company 1-800-655-4555					
For general information about the Power Content Label, visit:						https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-program					

Appendix G

Noise Calculations

G-1 Construction Modeling

Project: Santa Barbara County Utility-Scale Solar Amendments

Construction Noise Impact on Sensitive Receptors

Tier 1 & 2 Projects

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm) 0 Evening hours (7 pm to 10 pm) 0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	R1					R2				
				Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L11	Estimated Noise Shielding, dBA
Site Preparation					97	93				91	87		
Grader	1	85	40%	25	91	87	90	0	50	85	81	84	0
Dozer	1	85	40%	25	91	87	90	0	50	85	81	84	0
Tractor	1	84	40%	25	90	86	89	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	25	90	86	89	0	50	84	80	83	0
Generator	1	82	50%	25	88	85	88	0	50	82	79	82	0
Grading					98	94				92	88		
Grader	1	85	40%	25	91	87	90	0	50	85	81	84	0
Dozer	1	85	40%	25	91	87	90	0	50	85	81	84	0
Tractor	1	84	40%	25	90	86	89	0	50	84	80	83	0
Tractor	1	84	40%	25	90	86	89	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	25	90	86	89	0	50	84	80	83	0
Generator	1	82	50%	25	88	85	88	0	50	82	79	82	0
Building Construction					98	93				92	87		
Crane	1	85	16%	25	91	83	86	0	50	85	77	80	0
Forklift	1	75	10%	25	81	71	74	0	50	75	65	68	0
Welder	1	73	40%	25	79	75	78	0	50	73	69	72	0
Welder	1	73	40%	25	79	75	78	0	50	73	69	72	0
Welder	1	73	40%	25	79	75	78	0	50	73	69	72	0
Tractor	1	84	40%	25	90	86	89	0	50	84	80	83	0
Slurry Trenching Machine	1	82	50%	25	88	85	88	0	50	82	79	82	0
Auger Drill Rig	1	85	20%	25	91	84	87	0	50	85	78	81	0
Flat Bed Truck	1	84	40%	25	90	86	89	0	50	84	80	83	0
Generator	1	82	50%	25	88	85	88	0	50	82	79	82	0
Maximum Combined Noise Levels					94.0					88.0			
Threshold (95 dBA at 50 ft)					95					95			
Significant Impact?					No					No			

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005



Project: Santa Barbara County Utility-Scale Solar Amendments

Construction Noise Impact on Sensitive Receptors

Tier 1 & 2 Projects + Pile Driving

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm) 0 Evening hours (7 pm to 10 pm) 0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	R1					R2				
				Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L11	Estimated Noise Shielding, dBA
Site Preparation					97	93				91	87		
Grader	1	85	40%	25	91	87	90	0	50	85	81	84	0
Dozer	1	85	40%	25	91	87	90	0	50	85	81	84	0
Tractor	1	84	40%	25	90	86	89	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	25	90	86	89	0	50	84	80	83	0
Generator	1	82	50%	25	88	85	88	0	50	82	79	82	0
Grading					98	94				92	88		
Grader	1	85	40%	25	91	87	90	0	50	85	81	84	0
Dozer	1	85	40%	25	91	87	90	0	50	85	81	84	0
Tractor	1	84	40%	25	90	86	89	0	50	84	80	83	0
Tractor	1	84	40%	25	90	86	89	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	25	90	86	89	0	50	84	80	83	0
Generator	1	82	50%	25	88	85	88	0	50	82	79	82	0
Building Construction					103	96				97	90		
Crane	1	85	16%	25	91	83	86	0	50	85	77	80	0
Forklift	1	75	10%	25	81	71	74	0	50	75	65	68	0
Welder	1	73	40%	25	79	75	78	0	50	73	69	72	0
Welder	1	73	40%	25	79	75	78	0	50	73	69	72	0
Welder	1	73	40%	25	79	75	78	0	50	73	69	72	0
Tractor	1	84	40%	25	90	86	89	0	50	84	80	83	0
Slurry Trenching Machine	1	82	50%	25	88	85	88	0	50	82	79	82	0
Auger Drill Rig	1	85	20%	25	91	84	87	0	50	85	78	81	0
Flat Bed Truck	1	84	40%	25	90	86	89	0	50	84	80	83	0
Generator	1	82	50%	25	88	85	88	0	50	82	79	82	0
Impact Pile Driver	1	95	20%	26	101	94	97	0	51	95	88	91	0
Maximum Combined Noise Levels					96.4					90.4			
Threshold (95 dBA at 50 ft)					95					95			
Significant Impact?					Yes					No			

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005



Project: Santa Barbara County Utility-Scale Solar Amendments

Construction Noise Impact on Sensitive Receptors

Tier 3 & 4 Projects

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm) 0 Evening hours (7 pm to 10 pm) 0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	R1					R2				
				Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L11	Estimated Noise Shielding, dBA
Site Preparation				91	87				97	93			
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Grading				93	89				99	95			
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Scraper	1	85	40%	100	79	75	78	0	50	85	81	84	0
Scraper	1	85	40%	100	79	75	78	0	50	85	81	84	0
Scraper	1	85	40%	100	79	75	78	0	50	85	81	84	0
Scraper	1	85	40%	100	79	75	78	0	50	85	81	84	0
Building Construction				92	87				98	93			
Crane	1	85	16%	100	79	71	74	0	50	85	77	80	0
Crane	1	85	16%	100	79	71	74	0	50	85	77	80	0
Crane	1	85	16%	100	79	71	74	0	50	85	77	80	0
Crane	1	85	16%	100	79	71	74	0	50	85	77	80	0
Forklift	1	75	10%	100	69	59	62	0	50	75	65	68	0
Forklift	1	75	10%	100	69	59	62	0	50	75	65	68	0
Forklift	1	75	10%	100	69	59	62	0	50	75	65	68	0
Forklift	1	75	10%	100	69	59	62	0	50	75	65	68	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Slurry Trenching Machine	1	82	50%	100	76	73	76	0	50	82	79	82	0
Slurry Trenching Machine	1	82	50%	100	76	73	76	0	50	82	79	82	0
Slurry Trenching Machine	1	82	50%	100	76	73	76	0	50	82	79	82	0
Slurry Trenching Machine	1	82	50%	100	76	73	76	0	50	82	79	82	0
Auger Drill Rig	1	85	20%	100	79	72	75	0	50	85	78	81	0
Auger Drill Rig	1	85	20%	100	79	72	75	0	50	85	78	81	0
Auger Drill Rig	1	85	20%	100	79	72	75	0	50	85	78	81	0
Auger Drill Rig	1	85	20%	100	79	72	75	0	50	85	78	81	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Maximum Combined Noise Levels					88.8					94.8			
Threshold (95 dBA at 50 ft)					95					95			
Significant impact?					No					No			

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005



Project: Santa Barbara County Utility-Scale Solar Amendments

Construction Noise Impact on Sensitive Receptors

Tier 3 & 4 Projects + Pile Driving

Parameters

Construction Hours:	8 Daytime hours (7 am to 7 pm) 0 Evening hours (7 pm to 10 pm) 0 Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3

				R1					R2				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L11	Estimated Noise Shielding, dBA
Site Preparation					91	87				97	93		
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Grading					93	89				99	95		
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Grader	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Dozer	1	85	40%	100	79	75	78	0	50	85	81	84	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Scraper	1	85	40%	100	79	75	78	0	50	85	81	84	0
Scraper	1	85	40%	100	79	75	78	0	50	85	81	84	0
Scraper	1	85	40%	100	79	75	78	0	50	85	81	84	0
Scraper	1	85	40%	100	79	75	78	0	50	85	81	84	0
Building Construction					94	88				100	94		
Crane	1	85	16%	100	79	71	74	0	50	85	77	80	0
Crane	1	85	16%	100	79	71	74	0	50	85	77	80	0
Crane	1	85	16%	100	79	71	74	0	50	85	77	80	0
Crane	1	85	16%	100	79	71	74	0	50	85	77	80	0
Forklift	1	75	10%	100	69	59	62	0	50	75	65	68	0
Forklift	1	75	10%	100	69	59	62	0	50	75	65	68	0
Forklift	1	75	10%	100	69	59	62	0	50	75	65	68	0
Forklift	1	75	10%	100	69	59	62	0	50	75	65	68	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Welder	1	73	40%	100	67	63	66	0	50	73	69	72	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Tractor	1	84	40%	100	78	74	77	0	50	84	80	83	0
Slurry Trenching Machine	1	82	50%	100	76	73	76	0	50	82	79	82	0
Slurry Trenching Machine	1	82	50%	100	76	73	76	0	50	82	79	82	0
Slurry Trenching Machine	1	82	50%	100	76	73	76	0	50	82	79	82	0
Slurry Trenching Machine	1	82	50%	100	76	73	76	0	50	82	79	82	0
Auger Drill Rig	1	85	20%	100	79	72	75	0	50	85	78	81	0
Auger Drill Rig	1	85	20%	100	79	72	75	0	50	85	78	81	0
Auger Drill Rig	1	85	20%	100	79	72	75	0	50	85	78	81	0
Auger Drill Rig	1	85	20%	100	79	72	75	0	50	85	78	81	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Flat Bed Truck	1	84	40%	100	78	74	77	0	50	84	80	83	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Generator	1	82	50%	100	76	73	76	0	50	82	79	82	0
Impact Pile Driver	1	95	20%	100	89	82	85	0	50	95	88	91	0
Maximum Combined Noise Levels				88.8					94.8				
Threshold (95 dBA at 50 ft)				95					95				
Significant Impact?				No					No				

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005



Table 1. CA/T equipment noise emissions and acoustical usage factors database.

CA/T Noise Emission Reference Levels and Usage Factors					
filename: EQUIPLST.xls					
revised: 7/26/05					
Equipment Description	Impact Device ?	Acoustical Use Factor (%)	Spec 721.560 Lmax @ 50ft (dBA, slow)	Actual Measured Lmax @ 50ft (dBA, slow) (samples averaged)	No. of Actual Data Samples (Count)
Other Equipment	No	50%	85	-- N/A --	0
Auger Drill Rig	No	20%	85	84	36
Tractor/Loader/Backhoe	No	40%	80	78	372
Bar Bender	No	20%	80	-- N/A --	0
Blasting	Yes	#VALUE!	94	-- N/A --	0
Boring Jack Power Unit	No	50%	80	83	1
Chain Saw	No	20%	85	84	46
Clam Shovel (dropping)	Yes	20%	93	87	4
Compactor (ground)	No	20%	80	83	57
Compressor (air)	No	40%	80	78	18
Concrete Batch Plant	No	15%	83	-- N/A --	0
Concrete Mixer Truck	No	40%	85	79	40
Concrete Pump Truck	No	20%	82	81	30
Concrete Saw	No	20%	90	90	55
Crane	No	16%	85	81	405
Dozer	No	40%	85	82	55
Drill Rig Truck	No	20%	84	79	22
Drum Mixer	No	50%	80	80	1
Dump Truck	No	40%	84	76	31
Excavator	No	40%	85	81	170
Flat Bed Truck	No	40%	84	74	4
Forklift	No	10%	75		
Front End Loader	No	40%	80	79	96
Generator	No	50%	82	81	19
Generator (<25KVA, VMS signs)	No	50%	70	73	74
Gradall	No	40%	85	83	70
Grader	No	40%	85	-- N/A --	0
Grapple (on backhoe)	No	40%	85	87	1
Horizontal Boring Hydr. Jack	No	25%	80	82	6
Hydra Break Ram	Yes	10%	90	-- N/A --	0
Impact Pile Driver	Yes	20%	95	101	11
Jackhammer	Yes	20%	85	89	133
Man Lift	No	20%	85	75	23
Mounted Impact Hammer (hoe ram)	Yes	20%	90	90	212
Pavement Scarafier	No	20%	85	90	2
Paver	No	50%	85	77	9
Pickup Truck	No	40%	55	75	1
Pneumatic Tools	No	50%	85	85	90
Pumps	No	50%	77	81	17
Refrigerator Unit	No	100%	82	73	3
Rivit Buster/chipping gun	Yes	20%	85	79	19
Rock Drill	No	20%	85	81	3
Roller	No	20%	85	80	16
Sand Blasting (Single Nozzle)	No	20%	85	96	9
Scraper	No	40%	85	84	12
Shears (on backhoe)	No	40%	85	96	5
Slurry Plant	No	100%	78	78	1
Slurry Trenching Machine	No	50%	82	80	75
Soil Mix Drill Rig	No	50%	80	-- N/A --	0
Tractor	No	40%	84	-- N/A --	0
Vacuum Excavator (Vac-truck)	No	40%	85	85	149
Vacuum Street Sweeper	No	10%	80	82	19
Ventilation Fan	No	100%	85	79	13
Vibrating Hopper	No	50%	85	87	1
Vibratory Concrete Mixer	No	20%	80	80	1
Vibratory Pile Driver	No	20%	95	101	44
Warning Horn	No	5%	85	83	12
Welder	No	40%	73	74	5

TRAFFIC NOISE ANALYSIS TOOL



Project Name: Santa Barbara County Utility-Scale Solar Amendments
 Analysis Scenario: Construction
 Source of Traffic Volumes: Assumptions

Segment/Project Type	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Santa Barbara County roadways - Tier 1&2 Solar Projects	Hard	25	35	35	30	60	0	10	60.0	60.3
Santa Barbara County roadways - Tier 3&4 Solar Projects	Hard	25	35	35	30	120	0	20	65.3	65.6

Santa Barbara County Utility-Scale Solar Amendments
Vibration Level Calculations

				Receptor		
				N =	1.5	
Construction Equipment	Project Equipment	Equipment Velocity Decibels @ 25 Feet* (VdB)	Equipment Peak Particle Velocity @ 25 Feet* (inches/second)	Distance to Structure (Feet)	Estimated Velocity Decibels @ Distance** (VdB)	Estimated Peak Particle Velocity @ Distance*** (inches/second)
Pile Driver (Impact - Upper Range)		112	1.518	100	0.0	0.000
Pile Driver (Impact - Typical)	Yes	104	0.644	100	92.0	0.081
Pile Driver (Sonic - Upper Range)		105	0.734	25	0.0	0.000
Pile Driver (Sonic - Typical)		93	0.170	25	0.0	0.000
Clam Shover Drop (Slurry Wall)		94	0.202	25	0.0	0.000
Hydromill (Slurry Wall - In Soil)		66	0.008	25	0.0	0.000
Hydromill (Slurry Wall - In Rock)		75	0.017	25	0.0	0.000
Vibratory Roller		94	0.210	25	0.0	0.000
Hoe Ram		87	0.089	25	0.0	0.000
Large Bulldozer	Yes	87	0.089	25	87.0	0.089
Caisson Drilling	Yes	87	0.089	25	87.0	0.089
Loaded Trucks	Yes	86	0.076	25	86.0	0.076
Jackhammer		79	0.035	25	0.0	0.000
Small Bulldozer	Yes	58	0.003	25	58.0	0.003

Source:

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.

Notes:

* Values taken from Table 7-4.

** Based on the formula $VdB(D) = VdB(25ft) - 30 \times \log_{10}(D/25)$, where D is equal to the distance (see page 185).

*** Based on the formula $PPV(D) = PPV(25 ft) \times (25/D)^N$, where D is equal to the distance (see page 185).

N = soil type classification factor (typically ranges from 1 to 1.5)

