

Final Environmental Impact Report

SCH# 2023050214

Volume 4

Chapter 7—Response to Comments

Enterprise Solar Storage Project

Enterprise Solar Storage Project by Enterprise Solar Storage, LLC. (PP23401)
PLN21-02330: Site 1 – ZCC 60, Map 196; CUP 62, Map 196
Non-Summary Street Vacations. Site 2 – SPA 34, Map 196; ZCC 61, Map 196
CUP 63, Map 196. Site 3 – ZCC 3, Map 195; ZCC 62, Map 196; CUP 2, Map 195;
CUP 64, Map 196; CUP 65, Map 196; SPA 35, Map 196
Non-Summary Street Vacations. Site 4 – SPA 4, Map 212; ZCC 4, Map 195; ZCC
3, Map 212; CUP 3, Map 195; CUP 6, Map 212; GPA 3, Map 212
Non-Summary Street Vacations. Site 5 – CUP 20, Map 197



Kern County
Planning and Natural Resources Department
Bakersfield, California

February 2024

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Lorelei H. Oviatt, AICP, Director
2700 "M" Street, Suite 100
Bakersfield, CA 93301-2323
Phone: (661) 862-8600
Fax: (661) 862-8601 TTY Relay 1-800-735-2929
Email: planning@kerncounty.com
Web Address: <http://kernplanning.com/>



**PLANNING AND NATURAL
RESOURCES DEPARTMENT**

Planning
Community Development
Administrative Operations

February 8, 2024

FILE: ZCC #60, Map
#196; and others;
S.D.: #4 - Couch

Addressee List (See Distribution List)

Re: Response to Comments for Draft Environmental Impact Report – Enterprise Solar Project by Enterprise Solar Storage, LLC (PP23401) (SCH#2023050214)

Dear Interested Party:

Enclosed is a document entitled *Volume 4 – Chapter 7 – Response to Comments*, for the above referenced project. Section 15088 of the California Environmental Quality Act Guidelines requires the Lead Agency to evaluate comments on environmental issues received from persons who reviewed the Draft Environmental Impact Report (EIR) and prepare a written response addressing each comment. This document is Chapter 7 of the Final EIR.

A public hearing has been scheduled with the Kern County Planning Commission to consider this request on **February 22, 2024** at 7:00 p.m., or soon thereafter, at the Chambers of the Board of Supervisors, First Floor, Kern County Administrative Center, 1115 Truxtun Avenue, Bakersfield, California.

Thank you for your participation in the environmental process for this project. If you have any questions regarding this project, please do not hesitate to contact me at (661) 862-5029 or via email at BritoAL@kerncounty.com.

Sincerely,

Alexis Brito, Planner II
Advanced Planning Division

COMMENTING AGENCIES AND INTERESTED PERSONS: California Department of Fish & Wildlife; California Department of Transportation, District 9; Kern County Public Works Department – Building & Development; Kern County Fire Department; California Regional Water Quality Control Board/Lahontan Region; Mojave Air and Space Port; Talia Nimmer; International Association of Bridge, Structural, Ornamental, and Reinforcing Iron Workers Local Union 416; Defenders of Wildlife; SoCalGas

Enterprise Solar Storage Project RTC Mailing List

Gerald Hatler For Julie A. Vance
Regional Manager
Department of Fish and Wildlife
Central Region
1234 East Shaw Avenue
Fresno, CA 93710

Maggie Ritter
Senior Transportation Planner
Division of Planning & Environmental
Caltrans, District 9
500 S Main St.
Bishop, CA 93514

Regina Arriaga
Assistant Fire Marshal
Kern County Fire Department
2820 M Street
Bakersfield, CA 93301

Nerses Papazyan
SoCalGas
Transmission Technical Services
9400 Oakdale Ave
Chatsworth, CA 91311

Talia Nimmer
Attorneys for Western States
Regional Council of Carpenters
139 South Hudson Avenue
Suite 200
Pasadena, CA 91101

Sophia Markowska
Defenders of Wildlife
Senior California Representative
980 - 9th Street, Suite 1730
Sacramento, CA 95814

Andrew Robinson
Engineering Geologist
California Regional Water Quality
Control Board/Lahontan Region
15095 Amargosa Road - Bld 2, Suite 210
Victorville, CA 92392

Cesar Ayon, Engineering Manager
Kern County Public Works Department/
Building & Development/Floodplain

Timothy J Reid
General Manager/CEO
Mojave Air and Space Port
1434 Flightline
Mojave, CA 93501

International Brotherhood of Electrical
Workers
Local Union No. 428
Brian Holt
Business Manager/Financial Secretary
3921 Sillect Avenue
Bakersfield, CA 93308

International Association of Bridge, Structural,
Ornamental, and Reinforcing Iron Workers
Local Union 416
Johnny Escobedo
Business Agent
13830 San Antonio Dr,
Norwalk, CA 90650

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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 # 2023050214

Project Title: Enterprise Solar Storage Project by Enterprise Solar Storage, LLC
Lead Agency: Kern County Planning and Natural Resources Department **Contact Person:** Alexis Brito
Mailing Address: 2700 "M" Street Suite 100 **Phone:** (661) 862-5029
City: Bakersfield **Zip:** 93301 **County:** Kern

Project Location: County: Kern City/Nearest Community: Mojave, California City
Cross Streets: State Route 14 and State Route 58 Zip Code: 93501
Lat. / Long.: 35.02055° N, 118.10569° W (NAD 83) Total Acres: 2,320
Assessor's Parcel No.: Multi Section: Multi Twp.: Multi Range: Multi Base: SBB&M
Within 2 Miles: State Hwy #: SR-58 / SR-14 Waterways: N/A
Airports: Mojave Railways: N/A Schools: Mojave Jr./Senior High

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 RTC 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: Nonsummary Vacation

Development Type:

Residential: Units _____ Acres _____ Water Facilities: Type _____ MGD _____
 Office: Sq.ft. _____ Acres _____ Employees _____ Transportation: Type _____
 Commercial: Sq.ft. _____ Acres _____ Employees _____ Mining: Mineral _____
 Industrial: Sq.ft. _____ Acres _____ Employees _____ Power: Type Photovoltaic Solar MW 600MW
 Educational _____ Waste Treatment: Type _____ MGD _____
 Recreational _____ Hazardous Waste: Type _____
 Other: Energy Storage System 4,000MWh

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 Wildlife
 Coastal Zone Noise Solid Waste Growth Inducing
 Drainage/Absorption Population/Housing Balance Toxic/Hazardous Land Use
 Economic/Jobs Public Services/Facilities Traffic/Circulation Cumulative Effects
 Other GHG, Wildfire, Tribal Cultural Resources, Energy

Present Land Use/Zoning/General Plan Designation:

Site 1 – Vacant Land/A-1/8.5. **Site 2** – Vacant Land/A-1, E (1/4), R-1, R-1 FPS, R-2 PD, R-2 PD FPS, CO PD, C-2 PD FPS, CH PD, CH PD FPS, OS, OS FPS/ 2.5, 3.1, 5.2, 5.3, 5.4, 6.2, 6.3, Low Den. Res. **Site 3** – Vacant Land/ A-1, A-1 H/8.5. **Site 4** – Vacant Land/A-1/1.1, 2.4, 8.5. **Site 5** – Wind Energy Facility/A WE/8.4.

Kern County General Plan and Specific Plan Map Code Designation: 1.1 (State and Federal Land), 2.4 (Steep Slope), 2.5 (Flood Hazard), 3.1 (Parks and Recreation Areas), 5.2 (Residential – Maximum 16 Units/Net Acre), 5.3 (Residential – Maximum 10 Units/Net Acre), 5.4 (Maximum 4 Units/Net Acre), 6.2 (General Commercial), 6.3 (Highway Commercial), 8.4 (Mineral and Petroleum, Min 5 Acre Parcel Size), 8.5 (Resource Management, Min 20 Acre Parcel Size).

Kern County Zoning District: A (Exclusive Agriculture); A-1 (Limited Agriculture); A-1 H (Limited Agriculture, Airport Approach Height Combining); A WE (Exclusive Agriculture, Wind Energy Combining), E (1/4) (Estate ¼ Acre), R-1 (Low Density Residential), R-1 FPS (Low Density Residential, Floodplain Secondary Combining), R-2 PD (Medium Density Residential, Precise Development Combining), R-2 PD FPS (Medium Density Residential, Precise Development Combining, Floodplain Secondary Combining), CO PD (Commercial Office, Precise Development Combining), C-2 PD FPS (General Commercial, Precise Development Combining, Floodplain Secondary), CH PD (Highway Commercial, Precise Development

Combining) CH PD FPS (Highway Commercial, Precise Development Combining, Floodplain Secondary Combining), OS (Open Space), OS FPS (Open Space, Floodplain Secondary Combining).

Project Description:

The Enterprise Solar Storage Project (proposed project) is a proposal by Enterprise Solar Storage, LLC (project proponent) for the construction and operation of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate 600 megawatts (MW) of renewable electrical energy with up to 4,000 megawatt-hours (MWh) of energy storage capacity (approximately 1,000 MW) on approximately 2,320 acres across five non-contiguous sites. The proposed associated infrastructure includes laydown yards, a meteorological station, and a substation. PV panels, inverters, converters, foundations, and transformers will be installed onsite. The proposed project also includes preferred and optional generation-tie (gen-tie) routes to enter the Windhub Substation, only one of which would be constructed.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".

If you have already sent your document to the agency, please denote that with an "S".

- | | |
|--|---|
| <input checked="" type="checkbox"/> Air Resources Board | <input checked="" type="checkbox"/> Office of Emergency Services |
| <input type="checkbox"/> Boating & Waterways, Department of | <input type="checkbox"/> Office of Historic Preservation |
| <input type="checkbox"/> California Highway Patrol | <input type="checkbox"/> Office of Public-School Construction |
| <input checked="" type="checkbox"/> CalFire | <input type="checkbox"/> Parks & Recreation |
| <input checked="" type="checkbox"/> Caltrans District # <u>6 & 9</u> | <input type="checkbox"/> Pesticide Regulation, Department of |
| <input checked="" type="checkbox"/> Caltrans Division of Aeronautics | <input type="checkbox"/> Public Utilities Commission |
| <input type="checkbox"/> Caltrans Planning (Headquarters) | <input checked="" type="checkbox"/> Regional WQCB # <u>Lahontan</u> |
| <input type="checkbox"/> Central Valley Flood Protection Board | <input checked="" type="checkbox"/> Resources Agency |
| <input type="checkbox"/> Coachella Valley Mountains Conservancy | <input type="checkbox"/> S.F. Bay Conservation & Development Commission |
| <input type="checkbox"/> Coastal Commission | <input type="checkbox"/> San Gabriel & Lower L.A. Rivers and Mtns Conservancy |
| <input type="checkbox"/> Colorado River Board | <input type="checkbox"/> San Joaquin River Conservancy |
| <input checked="" type="checkbox"/> Conservation, Department of | <input type="checkbox"/> Santa Monica Mountains Conservancy |
| <input type="checkbox"/> Corrections, Department of | <input type="checkbox"/> State Lands Commission |
| <input type="checkbox"/> Delta Protection Commission | <input type="checkbox"/> SWRCB: Clean Water Grants |
| <input type="checkbox"/> Education, Department of | <input checked="" type="checkbox"/> SWRCB: Water Quality |
| <input checked="" type="checkbox"/> Energy Commission | <input type="checkbox"/> SWRCB: Water Rights |
| <input checked="" type="checkbox"/> Fish & Game Region # <u>Fresno</u> | <input type="checkbox"/> Tahoe Regional Planning Agency |
| <input type="checkbox"/> Food & Agriculture, Department of | <input checked="" type="checkbox"/> Toxic Substances Control, Department of |
| <input type="checkbox"/> General Services, Department of | <input checked="" type="checkbox"/> Water Resources, Department of |
| <input type="checkbox"/> Health Services, Department of | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Housing & Community Development | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Integrated Waste Management Board | |
| <input checked="" type="checkbox"/> Native American Heritage Commission | |

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

Starting Date February 08, 2024 Ending Date February 22, 2024

Lead Agency (Complete if applicable):

Consulting Firm: _____	Applicant: _____
Address: _____	Address: _____
City/State/Zip: _____	City/State/Zip: _____
Contact: _____	Phone _____
Phone: _____	

Signature of Lead Agency Representative: _____ */s/* _____ **Date:** 02/08/2024
Alexis Brito, Planner II

Chapter 7

Response to Comments

SCH# 2023050214

Volume 4

Enterprise Solar Storage Project

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Non-Summary Street Vacations. Site 5 – CUP 20, Map 197



Kern County
Planning and Natural Resources Department
Bakersfield, California

February 2024

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Chapter 7

Response to Comments

7.1 Introduction

Purpose

As defined by Section 15050 of the California Environmental Quality Act (CEQA) Guidelines, the Kern County Planning and Natural Resources Department is serving as “Lead Agency” for the preparation of the Environmental Impact Report (EIR) for the Enterprise Solar Storage Project (project or proposed project). The Final EIR presents the environmental information and analyses that have been prepared for the project, including comments received addressing the adequacy of the Draft EIR, and responses to those comments. In addition to the responses to comments, clarifications, corrections, or minor revisions have been made to the Draft EIR. The Final EIR which includes the responses to comments, the Draft EIR, and the Mitigation, Monitoring, and Reporting Program, will be used by the Planning Commission and the Board of Supervisors in the decision-making process for the proposed project.

Environmental Review Process

A Notice of Preparation (NOP)/Initial Study (IS) (SCH No. 2023050214) was circulated for a 30-day public review period beginning on May 8, 2023, and ending on June 6, 2023. Fourteen (14) individual written comment letters were received on the NOP during this review period and one additional comment was received after the completion of the public review period. One additional comment was received at the May 25, 2023, public scoping meeting. All public comments received relevant to CEQA-related issues were considered by the County in preparing the Draft EIR.

The Draft EIR for the proposed project was circulated for a 45-day public review period beginning on November 21, 2023, through January 5, 2024. A total of five (5) comment letters were received on the Draft EIR during this period and six (6) letters were received after the close of the comment period.

Section 15088 of the *CEQA Guidelines* requires that the lead agency evaluate comments on environmental issues received from persons and agencies that reviewed the Draft EIR and prepare a written response addressing the comments received. The response to comments is contained in this document -Volume 4, Chapter 7 of the Draft EIR. Volumes 1, 2, 3, and 4 together constitute the Final EIR.

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7.2 Revisions to the Draft EIR

The revisions that follow were made to the text of the Draft EIR. Amended text is identified by page number. Additions to the Draft EIR text are shown with underlined text, and text removed from the Draft EIR is shown with ~~strike through~~. Revisions to a Draft EIR are required if clarifications or responses to comments cannot be made without alterations to the document. The revisions, as outlined below, fall within the scope of the original project analysis included in the Draft EIR and do not in an increase to any identified impacts or produce any new impacts. No new significant environmental impact would result from the changes or from a new mitigation measure proposed to be implemented. Therefore, no significant revisions have been made which would require recirculation of the Draft EIR pursuant to *CEQA Guidelines* Section 15088.5 (Recirculation of an EIR Prior to Certification).

Section 1.0, Executive Summary; Table 1-7, Page 1-36 – 1-96:

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.1 Aesthetics			
Impact 4.1-1: The project would have a substantial adverse effect on a scenic vista.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.1-2: The project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.1-3: The project would, in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage points) If the project is in an urbanized area, would the project conflict with applicable zoning and other	Potentially Significant	MM 4.1-1: Prior to issuance of a grading or building permit, a Maintenance, Trash Abatement, and Pest Management Program shall be submitted for review and approval to the Kern County Planning and Natural Resources Department. The program shall include, but not be limited to the following: <ul style="list-style-type: none"> a. The project proponent/operator shall clear debris from the project area at least twice per year; this can be done in conjunction with regular panel washing and site maintenance activities. b. The project proponent/operator shall erect signs with contact information for the project proponent/operator’s maintenance staff at regular intervals along the site boundary, as required by the Kern County Planning and Natural Resources Department. Maintenance staff shall respond within two weeks to resident requests for additional cleanup of debris. Correspondence with such requests and responses shall be submitted to the Kern County Planning and Natural Resources Department. 	Significant and unavoidable

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
regulations governing scenic quality.		<p>c. The project proponent/operator shall implement a regular trash removal and recycling program on an ongoing basis during construction, operation, and decommissioning of the project. Barriers to prevent pest/rodent access to food waste receptacles shall be implemented. Locations of all trash receptacles during operation of the project shall be shown on final plans.</p> <p>d. Trash and food items shall be contained in closed containers to be locked at the end of the day and removed at least once per week to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs.</p> <p>MM 4.1-2: Prior to the issuance of the building permit for the solar facility, the project proponent/operator shall submit a proposed color scheme and treatment plan, for review and approval by the Kern County Planning and Natural Resources Department, that will ensure all project facilities including operations and maintenance buildings, gen-tie poles, array facilities, etc. blend in with the colors found in the natural landscape. All color treatments shall result in matte or nonglossy/non-reflective finishes.</p> <p>MM 4.1-3: Wherever possible, within the proposed project boundary, the native vegetation shall remain undisturbed unless mowing is necessary for placement of the project components. All native vegetation adjacent to the proposed project boundary shall remain in place as permitted by Fire Code. Prior to the commencement of project operations and decommissioning, the project proponent/operator shall submit a Landscape Revegetation and Restoration Plan for the project site to the Kern County Planning and Natural Resources Department for review and approval. The plan shall include the measures detailed below.</p> <p>a. In areas temporarily disturbed during construction and decommissioning (including grading or removal of root balls resulting in loose soil), the ground surface shall be revegetated with a native seed mix or native plants (including Mohave creosote scrub habitat) and/or allowed to re-vegetate with the existing native seed bank in the top soil where possible to establish revegetation. Areas that contain permanent features such as perimeter roads, maintenance roads or under arrays do not require revegetation.</p> <p>b. The plan must include but is not limited to: (1) the approved California native seed mix that will be used onsite, (2) a timeline for seeding the site, (3) the details of which areas are to be revegetated, (4) a list of the consultation efforts completed, (5) the methods and schedule for installation of fencing that</p>	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>complies with wildlife agency regulations, and a clear prohibition of the use of toxic rodenticides.</p>	
		<p>c. Ground cover shall include native seed mix and shall be spread where earthmoving activities have taken place, as needed to establish re-vegetation. The seed mix or native plants shall be determined through consultation with professionals such as landscape architect(s), horticulturist(s), botanist(s), etc. with local knowledge as shown on submitted resume and shall be approved by the Kern County Planning and Natural Resources Department prior to planting. Phased seeding may be used if a phased construction approach is used (i.e., the entire site need not be seeded all at the same time).</p> <p>d. Vegetation/ground cover shall be continuously maintained on the site by the project operator.</p> <p>e. The re-vegetation and restoration of the site shall be monitored annually for a three-year period following restoration activities that occur post-construction and post-decommissioning. Based on annual monitoring visits during these three-year periods, an annual evaluation report shall be submitted to the Kern County Planning and Natural Resources Department for the three-year period. Should efforts to revegetate with the existing native seed bank in the top soil prove in the second year to not be successful by 75 percent cover rate, re-evaluation of revegetation methods shall be made in consultation with the Kern County Planning and Natural Resources Department and an additional year shall be added to the monitoring program to ensure coverage is achieved. The three- year monitoring program is intended to ensure the site naturally achieves native plant diversity, establishes perennials, and is consistent with conditions prior to implementation of the proposed project, where feasible.</p>	
		<p>MM 4.1-4: The project proponent/operator shall install metal fence slats or similar view-screening materials, as approved by the Kern County Planning and Natural Resources Department, on all on-site perimeter fencing for any portion of the solar site that is adjacent to parcels zoned for residential use, including E (Estate Residential), R-1 (Low-Density Residential), R-2 (Medium-Density Residential), R-3 (High-Density Residential), or PL (Platted Lands) zoning unless the adjacent property is owned by the project proponent (to be verified by the Kern County Planning and Natural Resources Department) or a public or private agency that has submitted correspondence to the Kern County Planning and Natural Resources</p>	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.1-4: The project would create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.</p>	<p>Potentially significant</p>	<p>Department requesting this requirement to be waived. Should the project proponent sell the adjacent property, slat fencing or similar view-screening materials shall be installed prior to the sale.</p> <p>MM 4.1-5: For portions of the project that abut residentially zoned parcels, an additional aesthetics setback of 100 feet shall be required from the project property boundary line, which includes the centerline of any public roadway. If a public roadway does not exist between the project site and the residentially zoned property, the 100 foot setback shall be measured from the edge of the shared property line. The project proponent shall be responsible for continued dust control and weed maintenance within this additional setback area. No solar panels, substations or operating equipment shall be located in or stored in the identified setback area.</p> <p>Implement MM 4.1-4 and MM 4.1-5 MM 4.1-2, above.</p> <p>MM 4.1-6: Prior to issuance of building permits, the project proponent shall demonstrate to Kern County Planning and Natural Resources Staff, through the submittal of a lighting plan, that the project site complies with the applicable provisions of the Dark Skies Ordinance (Chapter 19.81 of the Kern County Zoning Ordinance) and shall be designed to provide the minimum illumination needed to achieve safety and security objectives. All lighting shall be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass into adjacent properties and roadways. Lenses and bulbs shall not be exposed or extend below the shields.</p> <p>MM 4.1-7: Prior to the issuance of building permits, the project proponent shall demonstrate the solar panels and hardware are designed to minimize glare and spectral highlighting. Emerging technologies shall be used, such as diffusion coatings and nanotechnological innovations, to effectively reduce the refractive index of the solar cells and protective glass. These technological advancements are intended to make the solar panels more efficient with respect to converting incident sunlight into electrical power while also reducing the amount of glare generated by the panels. Specifications of such designs shall be submitted to the Kern County Planning and Natural Resources Department.</p>	<p>Less than significant</p>
<p>Impact 4.1: Cumulative Impacts</p>	<p>Potentially Significant</p>	<p>Implementation of Mitigation Measures MM 4.1-1 through MM 4.1-7 is required.</p>	<p>Significant and unavoidable (Visual Character)</p>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Less than significant (Scenic Resource; Light and Glare)			
4.2 Agriculture and Forestry Resources			
Impact 4.2-1: The project would Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use.	No impact	No mitigation measures are required.	No impact
Impact 4.2-2: The project would conflict with existing zoning for agricultural use or Williamson Act Contract.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.2-3: The project would conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)) or timberland (as defined in Public Resources Code	No impact	No mitigation measures are required.	No impact

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4526) or timberland zoned Timberland Production (as defined by Government Code Section 51104 (g).		No mitigation measures are required.	No impact
Impact 4.2-4: The project would result in the loss of forestland or conversion of forest land to non-forest use.	No impact	No mitigation measures are required.	No impact
Impact 4.2-5: The project would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.2-6: The project would result in the cancellation of an open space contract made pursuant to the California Land Conservation Act of 1965 or Farmland Security Zone Contract for any parcel of 100 or more acres (Section	No impact	No mitigation measures are required.	No impact

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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
15206(b)(3) Public Resources Code.			
Impact 4.2: Cumulative Impacts	Less than significant	No mitigation measures are required.	Less than significant
4.3 Air Quality			
Impact 4.3-1: The project would conflict with or obstruct implementation of the applicable air quality plan.	Potentially Significant	<p>MM 4.3-1: The project shall continuously comply with applicable rules and regulations set forth by the East Kern Air Pollution Control District.</p> <p>MM 4.3-2: Prior to issuance of any grading permit, the project proponent shall submit a Site-Specific Dust Control Plan for review and approval by the Kern County Planning and Natural Resources Department. The Site-Specific Dust Control Plan shall serve to minimize fugitive dust emissions during project construction. The Site-Specific Dust Control Plan shall take into consideration grading and construction schedule, seasonal winds, site-specific wind patterns and soil conditions to ensure adequate measures are implemented to manage fugitive dust. The Site-Specific Dust Control Plan shall:</p> <ol style="list-style-type: none"> a. Identify a comprehensive grading schedule for the entire project site. When feasible, grading activities shall be phased and minimized to those areas necessary for project access and installation of solar panels and other areas of infrastructure associated with the solar facility. b. The Site-Specific Dust Control Plan shall identify, in addition to those measures required by the air district, all measures being undertaken during construction activities and operational activities to ensure fugitive dust being blown off site is minimized. Measures may include, but are not limited to: <ol style="list-style-type: none"> 1. Use of water trucks as required for the expected level of winds in the area. 2. Use of dust suppressant (i.e., soil binders or mulch). 3. Pre-seeding and irrigating prior to construction to create vegetation with useful root structures. 4. Construction of dust screening in appropriate locations around the project site (i.e., fence slats or mesh screening). 5. A copy of the approved Site-Specific Dust Control Plan shall be kept at the on-site construction office and all measures included in the Site-Specific 	<p>Less than significant <u>Significant and unavoidable</u> (Construction) Less than significant (Operation)</p>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Dust Control Plan shall be included on all Grading Plans issued for the project by the Kern County Public Works Department</p> <p>MM 4.3-3: The project proponent and/or its contractors shall continuously implement the following measures during construction and operation of the project to control emissions from the on-site equipment:</p> <ol style="list-style-type: none"> a. All equipment shall be maintained in accordance with the manufacture’s specifications. b. All equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for extended periods of time. Engine idling of all equipment shall be minimized. c. Construction equipment shall not operate longer than eight cumulative hours per day. d. All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOX emissions. e. On-road and off-road diesel equipment shall use diesel particulate filters (or the equivalent) if permitted under manufacturer’s guidelines. f. All on-site off-road equipment and on-road vehicles shall meet the recent California Air Resources Board engine emission standards or alternatively fueled equipment, such as compressed natural gas, liquefied natural gas, or electric, as appropriate. <p>MM 4.3-4: Prior to commencement of any onsite construction activities (i.e., fence construction, mobilization of construction equipment, initial grading), including decommissioning, the project proponent shall provide written notice to the public through mailing a notice to all parcels within 1,000 feet of the project site, no sooner than 15 days prior to construction activities. The notices shall include the construction schedule, a telephone number and email address where complaints and questions can be registered. Additionally, a minimum of one sign, legible at a distance of 50 feet, shall also be posted at the construction sites or adjacent to the nearest public access to the main construction entrances throughout construction activities which include the construction schedule (updated as needed) and a telephone number where complaints can be registered. Documentation that the</p>	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.3-2: The project would expose sensitive receptors to substantial pollutant concentrations.	Potentially Significant	<p>public notice has been sent and the sign has been posted shall be provided to the Kern County Planning and Natural Resources Department.</p> <p>MM 4.3-5: Prior to the issuance of any grading or building permit, the project proponent shall establish a “construction coordinator” and submit written documentation which includes their phone number, email address and mailing address. The construction coordinator shall be responsible for the following:</p> <ol style="list-style-type: none"> a. Responding to any local complaints about construction activities. The construction coordinator shall determine the cause of the construction complaint and shall be required to implement reasonable measures such that the complaint is resolved. b. Ensuring all appropriate construction notices have been made available to the public and that all appropriate construction signs have been installed. c. Maintaining an ongoing up-to-date log of all construction related complaints (i.e., blowing dust, inability to access parcels, etc.) during project construction activities. The log shall include the nature of the complaint and the measures that were undertaken to address the concerns. Upon request, the construction coordinator shall provide the log to the Planning and Natural Resources Department no later than three business days from request. <p>Implement Mitigation Measures MM 4.3-1 through MM 4.3-5, as described above.</p> <p>MM 4.3-6: To minimize personnel and public exposure to potential Valley Fever–containing dust on and off site, the following control measures shall be implemented during project construction:</p> <ol style="list-style-type: none"> a. Equipment, vehicles, and other items shall be thoroughly cleaned of dust before they are moved off site to other work locations. b. Wherever possible, grading and trenching work shall be phased so that earth-moving equipment is working well ahead or downwind of workers on the ground. c. The area immediately behind grading or trenching equipment shall be sprayed with water before ground workers move into the area. d. In the event that a water truck runs out of water before dust is sufficiently dampened, ground workers being exposed to dust shall leave the area until a truck can resume water spraying. 	<p>Significant and unavoidable (Criteria Air Pollutants for Construction)</p> <p>Less than significant (Operation)</p>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>e. To the greatest extent feasible, heavy-duty earth-moving vehicles shall be closed- cab and equipped with a HEP-filtered air system.</p> <p>f. Workers shall receive training in procedures to minimize activities that may result in the release of airborne <i>Coccidioides immitis</i> (CI) spores, to recognize the symptoms of Valley Fever, and shall be instructed to promptly report suspected symptoms of work-related Valley Fever to a supervisor. Evidence of training shall be provided to the Kern County Planning and Natural Resources Department.</p> <p>g. A Valley Fever informational handout shall be provided to all onsite construction personnel. The handout shall, at a minimum, provide information regarding the symptoms, health effects, preventative measures, and treatment. Additional information and handouts can be obtained by contacting the Kern County Public Health Services Department.</p> <p>h. On-site personnel shall be trained on the proper use of personal protective equipment, including respiratory equipment. National Institute for Occupational Safety and Health–approved respirators shall be provided to on-site personnel, upon request. When exposure to dust is unavoidable, provide appropriate National Institute for Occupational Safety & Health-approved respiratory protection to affected workers, if necessary. If respiratory protection is deemed necessary, employers must develop and implement a respiratory protection program in accordance with California Division of Occupational Safety and Health's Respiratory Protection standard (8 CCR 5144).</p>	
		<p>MM 4.3-7: Prior to the issuance of grading permits, a one- time fee shall be paid to the Kern County Public Health Services Department in the amount of \$3,200 for Valley Fever public awareness programs.</p>	
		<p>MM 4.3-8: <u>At the time of project implementation, a COVID-19 Health and Safety Plan should be prepared in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates. A copy of the COVID-19 Health and Safety Plan shall be submitted to the Kern County Planning and Natural Resources Department for review and approval.</u></p>	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.3-3: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people)	Less than significant	No mitigation required.	Less than significant
Cumulative Impact: The project would result in a cumulatively considerable net increase of any criteria pollutant for which the projects' region is nonattainment under applicable federal or State ambient air quality standards.	Potentially Significant	Implementation Mitigation Measures MM 4.3-1 through MM 4.3-78 is required.	Significant and unavoidable (Construction and Decommissioning) Less than significant (Operation)
4.4 Biological Resources			
Impact 4.4-1: The project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Potentially Significant	Implementation of Mitigation Measures MM 4.1-1 through MM 4.1-3, MM 4.1-6, and MM 4.1-7, as described above. MM 4.4-1: Prior to the issuance of grading or building permits, and prior to decommissioning, the project operator shall retain a Lead Biologist(s) who meets the qualifications of an Authorized Biologist as defined by U.S. Fish and Wildlife Service to oversee compliance with protection measures for all listed and other special-status species that may be affected by the construction, operation, and decommissioning of the project. The contact information for the Lead Biologist(s) shall be provided in writing to the Planning and Natural Resources Department. The following measures pertain to the Lead Biologist(s): a. The Lead Biologist(s), or their designee, shall be on the project site during all construction activities which include, but are not limited to, installation of perimeter fencing, clearing of vegetation, grading activities, site buildout, and decommissioning. b. The Lead Biologist(s) or their designee shall have the right to halt all activities that are in violation of the special-status species protection measures, as well as any regulatory permits from the U.S. Fish and Wildlife Service and/or the	Less than Significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>California Department of Fish and Wildlife, if applicable. Work shall proceed only after hazards to special-status species are removed and the species is no longer at risk.</p> <p>MM 4.4-2: Prior to the issuance of grading or building permits, or decommissioning of the site, the Lead Biologist shall develop a Worker Environmental Awareness Training Program containing life history and identification information of special-status wildlife and plant species with potential to occur on site. The Worker Environmental Awareness Training Program shall review responsibilities for all on-site personnel including trash control, checking under and around vehicles and heavy equipment before starting, scanning for wildlife resources, contacting the Lead Biologist in the unanticipated instance of encountering special status wildlife species, and prohibition of pets and firearms. All on-site personnel shall be required to attend a worker environmental training. A sticker shall be placed on hard hats, indicating that the worker has completed the Worker Environmental Awareness Training. Copies of all prepared materials including, but not limited to, PowerPoint presentations, videos, information handouts and signed acknowledgement from each worker who has attended the required training shall be provided to the Planning and Natural Resources Department.</p> <p>MM 4.4-3: During construction and decommissioning of the project site, the project proponent and/or contractor(s) shall implement the following general avoidance and protective measures:</p> <ol style="list-style-type: none"> a. Immediately prior to conducting vegetation clearing or similar activities, the Lead Biologist or their designee shall perform a pre-construction visual survey of the area to ensure that no special-status species are present. Daily reports of these inspections shall be retained by the Lead Biologist and provided to the Kern County Planning and Natural Resources Department, U.S. Fish and Wildlife Service, or California Department Fish and Wildlife upon request. b. Within the vicinity of any construction activities, sensitive biological resources (i.e., special-status species, jurisdictional drainages, nesting birds, etc.) shall be delineated with stakes and/or flagging. c. Access roads that are planned for use during construction activities shall not extend beyond the planned impact area, which area includes all previously disturbed lands and any location within the project fenceline not delineated for 	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		avoidance of sensitive biological resources. Where new access routes are required, the route will be clearly marked prior to construction.	
		d. The project proponent/operator shall minimize the areas of disturbance. Parking areas, new roads, staging, storage, excavation, and disposal site locations shall be confined to the smallest areas possible. These areas shall be demarcated and disturbance activities, vehicles, and equipment shall be confined to these areas.	
		e. Any spoils shall be stockpiled in disturbed areas that lack native vegetation to the maximum extent practicable. Spoils that have been stockpiled and inactive for more than 24 hours shall be inspected by a qualified biologist for signs of special-status wildlife before moving or disturbing.	
		f. To prevent inadvertent entrapment of desert kit foxes, American badgers, or other animals during construction, all excavated steep-walled holes or trenches more than two (2) feet deep shall be covered with plywood or similar materials at the close of each working day. If holes or trenches cannot be covered, one or more escape ramps constructed of earthen fill or wooden planks, no less than 12 inches wide and secured at the top, shall be placed a minimum of every 100 feet within the open trench. Covered and non-covered holes or trenches shall be thoroughly inspected for trapped animals by a qualified biologist at the beginning and end of each working day. Immediately before such holes or trenches are filled, they shall again be thoroughly inspected by trained Staff approved by the Lead Biologist. If non-listed trapped animals are observed, escape ramps or structures shall be installed immediately to allow for their escape. If a listed species is trapped, escape ramps or structures shall be installed immediately to allow for their escape and the Lead Biologist shall immediately confer with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife.	
		g. All construction pipes, culverts, or similar structures with a diameter of four (4) inches or greater that are stored at the site for more than 24 hours and without endcaps shall be thoroughly inspected by a qualified biologist prior to being moved or capped. If a listed wildlife species is discovered inside a pipe, that section of pipe shall not be moved until a qualified biologist has been consulted and the animal has either moved from the structure on its own accord or until the animal has been captured and relocated in conformance with appropriate wildlife agency guidelines.	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> h. No vehicle or equipment parked on the project site shall be moved prior to inspecting the ground beneath the vehicle or equipment for the presence of listed wildlife species. If present, the animal shall be left to move on its own. i. A speed limit of 15 miles per hour shall be enforced within the limits of the project site. If night work occurs on the project site, the speed limit will be 10 miles per hour. j. Fueling of equipment shall take place within existing roads or disturbed areas. No refueling within or adjacent to drainages (within 150 feet) shall be permitted. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. k. Trash and food items shall be contained in closed containers to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs. l. Workers shall be prohibited from bringing pets and firearms to the project site and from feeding wildlife. m. Intentional killing or collection of any listed plant or wildlife species shall be prohibited. n. Herbicides that may be used as vegetation control measures in project areas shall be restricted. All uses of such herbicidal compounds shall observe label and other restrictions mandated by the U.S Protection Agency, California Department of Food and Agriculture, and state/federal legislation as well as additional project related restrictions deemed necessary by the U.S. Fish and Wildlife Service or California Department of Fish and Wildlife. No rodenticides shall be used on the project site. 	
		<p>MM 4.4-4: During construction, operation and maintenance, and decommissioning, project work crews shall be directed to use industry accepted and standard construction best management practices (BMPs) consistent with the County zoning ordinances and with guidelines provided in the California Stormwater Quality Association’s Construction Best Management Practice Handbook, where applicable, to avoid, minimize, and/or reduce potential construction-related impacts on biological resources. BMPs shall be monitored and repaired throughout the life of the project. The project proponent/operator and/or contractor(s) shall implement the general measures described below:</p>	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> a. BMPs shall be employed to prevent erosion in accordance with the Project’s approved Stormwater Pollution Prevention Plan (SWPPP). Detected erosion shall be remedied as described in the <i>Erosion Control Plan</i> of the Stormwater Pollution Prevention Plan. b. Fueling of equipment shall take place within existing roads. No refueling within or adjacent to drainages (within 150 feet) shall be permitted. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. c. Any material/spoils generated from project activities shall be located away from jurisdictional areas and environmentally sensitive areas that are not slated for impacts. d. Jurisdictional areas and environmentally sensitive areas shall be protected from storm water run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers, as appropriate. e. Materials shall be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage from contaminating the ground and generally at least 50 feet from the top of bank of any jurisdictional areas and environmentally sensitive areas. f. Any spillage of material will be stopped if it can be done safely. The contaminated area will be cleaned, and any contaminated materials properly disposed of. For all spills, the project foreman or designated environmental representative will be notified. 	
		<p>MM 4.4-5: Prior to the issuance of grading or building permits, the project proponent will conduct pre-construction botanical surveys, <u>by a qualified botanist following the CDFW Botanical Protocol (CDFW 2018) the survey season immediately prior to construction</u>, to verify the location of alkali mariposa lily in the vicinity of the location where the species was potentially identified during botanical surveys and in potentially affected areas within 200 feet of that location.</p> <ul style="list-style-type: none"> a. If no alkali mariposa lilies are observed during the survey, project activities may begin, and no further mitigation shall be required. b. If alkali mariposa lilies are observed during the survey, the areas shall be mapped and photographed, and appropriate measures shall be implemented to avoid impacts on the species to the extent feasible. The areas shall be clearly 	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>marked in the field with temporary high visibility ESA fencing or other appropriate markers. ESA fencing/markers shall remain in place throughout the duration of project construction and will be regularly inspected and maintained.</p>	
		<p>c. All alkali mariposa lilies that cannot feasibly be avoided in final project design shall have bulbs collected prior to construction. Additionally, an Alkali Lily Transplantation Plan will be submitted to and approved by the Kern County Planning and Natural Resources Department, prior to ground disturbance and bulb collection. The plan will include the following:</p> <ul style="list-style-type: none"> i. Identify an area of occupied habitat either on-site or off-site to be preserved and where transplantation of bulbs will occur and methods for preservation, restoration, enhancement, and/or translocation. ii. Indicate a replacement ratio and success standard of 1:1 for impacted individuals. iii. Establish a monitoring program to ensure mitigation success. iv. Create adaptive management and remedial measures in the event that performance standards are not achieved. v. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity. vi. Temporary ground disturbance associated with the transmission lines shall be recontoured to natural grade (if the grade was modified during the temporary disturbance activity) and revegetated with an application of a native seed mix prior to or during seasonal rains to promote passive restoration of the area to pre-project conditions. However, if invasive, non-native plant species were present, these species would not be restored. An area subjected to temporary ground disturbance means any area that is disturbed but will not be subjected to further disturbance as part of the project. This does not include areas already designated as urban/developed. Prior to seeding temporary ground disturbance areas, the qualified biologist will review the seeding palette to ensure that no seeding of invasive plant species, as identified in the most recent version of the California Invasive Plant Inventory for the region, will occur. 	
		<p><u>Special status plant species should be avoided whenever possible by delineation and observation of a 50-foot no-disturbance buffer from the outer edge of the special</u></p>	

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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><u>status plant population(s) or specific habitat type(s) required by special status plant species. If buffers cannot be maintained, then the project proponent shall consult with CDFW.</u></p> <p>MM 4.4-6: To protect special-status wildlife species from disturbance during construction, the actions described below shall occur. Within a maximum of 14 days of the start of ground-disturbing activities, such as geotechnical drilling, vegetation clearing, and/or grading, the qualified biologist(s) shall conduct preconstruction surveys for special-status species within the Project site, as well as within a minimum of 500 feet (152 meters) from the Project site to account for any inadvertent impacts on adjacent areas. Methodology for preconstruction surveys shall be conducted as appropriate for desert tortoise, <u>Northern California legless lizard</u>, burrowing owl, desert kit fox, Swainson’s hawk, loggerhead shrike, Le Conte’s thrasher, and migratory birds, and shall follow USFWS and/or the CDFW survey protocol guidelines, where appropriate. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within 14 days of the portion of the Project site that would be disturbed. If evidence of occupation by a special-status species is observed, a suitable buffer shall be established by a qualified biologist that results in sufficient avoidance.</p> <p>Following the completion of the pre-construction desert tortoise surveys, the qualified biologist will prepare and submit to the USFWS, CDFW, and the Kern County Planning and Natural Resources Department a letter/memo summarizing the results of the surveys.</p> <p><u>If Northern California legless lizard are documented during surveys, avoidance whenever possible is encouraged via delineation and observance of a 50-foot no-disturbance buffer; however, a qualified biologist with the appropriate permit may relocate Northern California legless lizard out of the project area into a nearby area with suitable habitat.</u></p> <p>MM 4.4-7: <u>The project consists of five geographically distinct Sites. Each project Site shall be fenced to keep terrestrial wildlife species from entering the project site during construction. Following construction, for Sites around which desert tortoise exclusion fencing is not installed but will provide openings post construction to enable wildlife to move freely through the project site during operation (e.g., create 4 to 7 inch portals or openings in the fence raising the fence 7 the fencing shall be raised 4 to 6 inches above the ground and knocking the bottom of the fence shall be</u></p>	

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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><u>knuckled</u> (i.e., wrapping the fencing material back to form a smooth edge) to protect wildlife passing underneath). A desert tortoise exclusion fence is not required unless desert tortoises are found on <u>S</u>site during the preconstruction surveys. This fencing <u>If desert tortoise exclusion fencing is required</u>, it shall be constructed of silt fence material, metal flashing, plastic sheeting, or other materials that will prohibit wildlife from climbing the fence or burrowing below the fence. The fencing shall be buried approximately 12 inches below the surface and extend a minimum of 30 inches above grade. Fencing shall be installed prior to issuance of grading or building permits and shall be maintained during all phases of construction and decommissioning. The fencing shall be inspected by a qualified biologist at a regular interval and immediately after all major rainfall events through the duration of construction and decommissioning activities. Any needed repairs to the fence shall be performed on the day of their discovery. Outside temporarily fenced exclusion areas, the project operator shall limit the areas of disturbance. Parking areas, new roads, staging, storage, excavation, and disposal site locations shall be confined to the smallest areas possible. These areas shall be flagged and disturbance activities, vehicles, and equipment shall be confined to these flagged areas.</p> <p>MM 4.4-8: To mitigate for potential impacts on nesting birds, special-status birds, and birds protected under the MBTA and California Fish and Game Code during construction and decommissioning activities, the following measures shall be implemented:</p> <ol style="list-style-type: none"> 1. During the avian nesting season (February 1–August 31<u>September 15</u>), a qualified biologist shall conduct a preconstruction avian nesting survey no more than 714 days prior to initial vegetation clearing. Surveys need not be conducted for the entire Project site at one time; they may be phased so that surveys occur within 714 days prior to clearing or disturbance in specific areas of the site. The surveying biologist must be qualified to determine the species, status, and nesting stage without causing intrusive disturbance. At no time shall the qualified biologist be allowed to handle the nest or its eggs. The survey shall cover all reasonably potential nesting locations on and within 500 feet (152 meters) of the Project site, including ground nesting species, such as horned lark, nests in shrubs that could support nests, and suitable raptor nest sites such as nearby trees, windrows, and power poles. Access shall be granted on private offsite properties prior to conducting surveys on private land. If access is not obtainable, the biologist shall 	

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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>survey these areas from the nearest vantage point with use of spotting scopes or binoculars.</p> <p>2. If construction is scheduled to occur during the non-nesting season (September 16–February 1), no preconstruction surveys or additional measures are required for non-listed avian species.</p> <p>If active nests are found, a 250100-foot (30-meter) no-disturbance buffer shall be created around non-listed avian species’ nests unless adjusted by the qualified biologist based on the needs and sensitivities of individual species, and a 500300-foot (91-meter) no-disturbance buffer shall be created around non-listed raptor species’ nests (or a suitable distance otherwise determined in consultation with a qualified biologist). Any nest of a federally or state listed bird species shall require consultation with the appropriate agency (USFWS or the CDFW) to determine the appropriate buffer distance surrounding the nest to provide adequate nest protection. These buffers shall remain in effect until a qualified biologist has determined that the birds have fledged or the Project component(s) have been redesigned to avoid the area. All no-disturbance buffers shall be delineated in the field with visible flagging or fencing material.</p> <p>MM 4.4-9: A qualified wildlife biologist (i.e., a wildlife biologist with previous burrowing owl survey experience) shall conduct preconstruction surveys of the permanent and temporary impact areas to locate active breeding or wintering burrowing owl burrows no less than 14 days and no more than 30 days prior to ground-disturbing activities (i.e., vegetation clearance, grading, tilling). The survey methodology shall be consistent with the methods outlined in the 2012 California Department of Fish and Wildlife Staff Report on Burrowing Owl Mitigation and shall consist of walking parallel transects 7 to 20 meters apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls. Surveys may be conducted concurrently with desert tortoise preconstruction surveys. As each burrow is investigated, surveying biologists shall also look for signs of American badger and desert kit fox. Copies of the survey results shall be submitted to California Department of Fish and Wildlife and the Kern County Planning and Natural Resources Department.</p> <p>As part of the preconstruction surveys a pre-construction survey with a 500-foot buffer to the extent property access is authorized should be conducted by a qualified biologist knowledgeable in the identification of burrowing owl, American badger,</p>	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation																							
		<p>and desert kit fox. If dens and/or burrows that could support any of these species are discovered during the pre-construction surveys, the avoidance buffers outlined below should be established. No work would occur within these buffers unless the biologist approves and monitors the activity.</p> <p><u>Burrowing Owl (active burrows):</u></p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th rowspan="2" style="text-align: center;">Location</th> <th rowspan="2" style="text-align: center;">Time of Year</th> <th colspan="3" style="text-align: center;">Level of Disturbance</th> </tr> <tr> <th style="text-align: center;">Low</th> <th style="text-align: center;">Med</th> <th style="text-align: center;">High</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Nesting Sites</td> <td style="text-align: center;">4/1-8/15</td> <td style="text-align: center;">200m</td> <td style="text-align: center;">500m</td> <td style="text-align: center;">500m</td> </tr> <tr> <td style="text-align: center;">Nesting Sites</td> <td style="text-align: center;">8/16-10/15</td> <td style="text-align: center;">200m</td> <td style="text-align: center;">200m</td> <td style="text-align: center;">500m</td> </tr> <tr> <td style="text-align: center;">Nesting Sites</td> <td style="text-align: center;">10/16-3/31</td> <td style="text-align: center;">50m</td> <td style="text-align: center;">100m</td> <td style="text-align: center;">500m</td> </tr> </tbody> </table> <p><u>American Badger/desert Kit Fox:</u></p> <ul style="list-style-type: none"> • Potential or Atypical den – 50 feet • Known den – 100 feet • Natal or pupping den – 500 feet, unless otherwise specified by CDFW. <p><u>Burrowing Owl and American Badger</u></p> <p>If burrowing owl or American badger are found within these recommended buffers and avoidance is not possible, burrow and/or den exclusion would be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow and/or den is confirmed empty through non-invasive methods, such as surveillance. Replacement of occupied burrows with artificial dens and/or burrows shall occur at a ratio of one burrow collapsed to one artificial den and/or burrow constructed (1:1) to mitigate for evicting burrowing and the loss of dens and/or burrows. Species may attempt to colonize or re-colonize an area that will be impacted; thus, ongoing surveillance shall occur at excluded burrows and/or dens at a rate that is sufficient to detect species if they return.</p> <p>Burrowing owls should not be excluded from burrows during the breeding season. During the non-breeding season burrowing owls shall not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed by a qualified biologist consistent with the recommendations of CDFW’s 2012 Staff Report on Burrowing Owl Mitigation and submitted to the Kern County Planning and Natural Resources Department. If a qualified CDFW approved biologist has determined that a pair of owls is no longer actively nesting (e.g., the young have been taken by predators, or</p>	Location	Time of Year	Level of Disturbance			Low	Med	High	Nesting Sites	4/1-8/15	200m	500m	500m	Nesting Sites	8/16-10/15	200m	200m	500m	Nesting Sites	10/16-3/31	50m	100m	500m	
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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>perished for some other reason), or where the juveniles are foraging independently and capable of independent survival, during the breeding season (February 1 through August 31), CDFW can be consulted about the use of passive relocation.</p> <p>The plan shall include, at a minimum:</p> <ol style="list-style-type: none"> a. Confirm by site surveillance that the burrow(s) is empty of burrowing owls and other species preceding burrow scoping; b. Type of scope to be used and appropriate timing of scoping to avoid impacts; c. Occupancy factors to look for and what shall guide determination of vacancy and excavation timing (one-way doors should be left in place 48 hours to ensure burrowing owls have left the burrow before excavation, visited twice daily and monitored for evidence that owls are inside and can't escape i.e., look for sign immediately inside the door). d. How the burrow(s) shall be excavated. Excavation using hand tools with refilling to prevent reoccupation is preferable whenever possible (may include using piping to stabilize the burrow to prevent collapsing until the entire burrow has been excavated and it can be determined that no owls reside inside the burrow); e. Removal of other potential owl burrow surrogates or refugia onsite; f. Photographing the excavation and closure of the burrow to demonstrate success and sufficiency. <p>MM 4.4-10: To determine the presence and activity of any known or new nests of Swainson's hawk, a qualified biologist shall conduct nest surveys for Swainson's hawk prior to commencement of construction activities. The surveying biologist must be approved by CDFW and Kern County and be qualified to determine the status and stage of nesting by Swainson's hawk. An initial nesting season survey must be performed no more than 1 year prior to the commencement of construction activities. The surveys shall be conducted during the nesting season for Swainson's hawk (March 1 through September 15) within both the construction footprint and within all accessible areas within a 5-mile buffer around the proposed construction areas. Areas within the 5-mile buffer that are not accessible shall be surveyed by binocular and spotting scope. The surveys can be phased with project build-out. The nesting season surveys shall follow the protocols set out in the CEC and CDFW Guidance (2010).</p>	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>If construction activities are scheduled to be initiated during the nesting season, a qualified biologist shall conduct a pre-construction survey of all accessible areas within 0.5 mile of the construction site to determine the presence and activity of known or new Swainson’s hawk nests. Inaccessible areas shall be surveyed by binocular and spotting scope. The preconstruction survey shall occur within 30 days prior to the start of construction. Depending on project timing, the pre-construction survey may not be necessary if the initial nesting season surveys overlap with the pre-construction survey timing or if construction activities will start outside of the Swainson’s hawk nesting season (September 16 to February 28). The pre-construction nest survey shall follow the protocols set out in the CEC and CDFW Guidance (2010).</p> <p>To the extent feasible, the project applicant shall design the project site to allow sufficient foraging and fledging area to maintain active Swainson’s hawk nests located adjacent to the project site. The solar panels and infrastructure would be set back from Swainson’s hawk nests at a distance determined after consultation with Kern County and CDFW. Avoided habitat would not count toward impacts used in determining compensatory mitigation requirements described below and may be used to satisfy mitigation requirements if protected by a conservation easement.</p> <p>During the nesting season (March 1 through September 15), ensure no new ground disturbances, habitat conversions, or other project-related activities that may cause nest abandonment or forced fledging shall occur within 0.5 mile of an active nest. Buffer zones may be adjusted in consultation with CDFW and with the County.</p> <p>If active Swainson’s hawk nests are found within a 0.5-mile radius of the project site during the preconstruction surveys, the project proponent/operator shall mitigate the loss of any moderate quality Swainson’s hawk foraging habitat for any portion of the project site within 5-miles of an active nest at a 0.5<u>1</u>:1 ratio. Mitigation lands may be nested with other compensatory lands provided it meets the necessary biological requirements and as determined by appropriate wildlife agency.</p> <p><u>If preconstruction surveys detect a nesting Swainson’s hawk, and a 0.5 - mile no-disturbance buffer is not feasible, it is strongly recommended that the Project proponent consult with CDFW prior to any ground disturbing activities to determine if an ITP is necessary.</u></p> <p>MM 4.4-11: Preconstruction surveys for small mammals including Mohave ground squirrel and southern grasshopper mouse shall be conducted within all suitable</p>	

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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>habitat 14 days prior to initial ground-disturbing activities. If a Mohave ground squirrel is found on the construction site, work shall be halted and redirected to areas not supporting this species, and consultation with Kern County and CDFW shall occur. A written report shall be sent to CDFW within 5 calendar days of the sighting. The report shall include the date, time of the finding or incident (if known), and location of the animal. If a dead Mohave ground squirrel is encountered, the remains shall be collected, frozen as soon as possible, and CDFW shall be contacted to determine where the remains would be sent.</p> <p>If Mohave ground squirrels are detected during any Project surveys, the applicant shall prepare a Mohave Ground Squirrel Avoidance and Monitoring Plan. If it is determined from surveys that Mohave ground squirrels are not present, no further action is required.</p> <p>The Mohave Ground Squirrel Avoidance and Monitoring Plan shall include, at a minimum:</p> <ol style="list-style-type: none"> a. Specifications for designation of qualified Project biologists for conducting surveys and monitoring. b. Methods for excluding Mohave ground squirrels from the work area, such as fencing. c. Measures and procedures related to monitoring of construction for presence of Mohave ground squirrels. d. A requirement to cease work if a Mohave ground squirrel is encountered in a work area. e. Requirements for the worker environmental awareness training and education program training as it pertains to Mohave ground squirrels reporting requirements. f. <u>All documented active MGS burrows shall be avoided by a minimum of 50 feet to avoid take and potentially significant impacts; if avoidance is not feasible, the project proponent shall consult with CDFW to determine whether an ITP is necessary.</u> <p>MM 4.4-12: The Project proponent/operator shall implement the following measures to ensure potential impacts on American badger and desert kit foxes resulting from Project construction, operation and maintenance, and decommissioning activities would be avoided and minimized to a less-than-</p>	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>significant level:</p> <ol style="list-style-type: none"> a. A qualified biologist shall be onsite during all initial grading and construction, preconstruction ground-disturbing activities, and decommissioning activities. b. A qualified biologist (that is, a biologist with the ability to identify the species and possessing previous mammal survey and avoidance and minimization protection experience) shall conduct preconstruction surveys of all areas that would be permanently or temporary impacted, plus a 500-foot (152-meter) buffer, to locate unoccupied and occupied dens. c. <u>If occupied Desert Kit Fox dens are identified on-site, the project proponent shall establish appropriate buffers limiting all construction activities near an active den. Buffers include (50 Feet) for a potential or atypical den, (100) feet for a known den and (500) feet for a natal or pupping den, unless otherwise specified by the California Department of Fish and Wildlife (CDFW). If required buffers are not possible to protect the species, then the project proponent shall confer with CDFW on the need for take authorization through the acquisition of an incidental take permit, pursuant to Fish and Game Code section 2081 subdivision.</u> <ol style="list-style-type: none"> 1. Unooccupied potential dens for desert kit fox or American badger shall have a minimum 30-foot (9-meter) avoidance buffer established. 1. An occupied den outside of the pup-rearing season shall be flagged and ground-disturbing activities avoided within 100 feet (30 meters) of the occupied den. An occupied den during the pup-rearing season, also known as a maternity den, should not be disturbed and a minimum 500-foot (152-meter) avoidance buffer established. 1. Desert kit fox pup-rearing season: February 1–August 1. 2. American badger pup-rearing season: March 15–July 31. 3. If outside the pup-rearing season an occupied den cannot be avoided, a passive relocation program can occur. The program shall consist of determining status of the den (confirming it is a nonmaternity den through remote camera monitoring), excluding American badger or desert kit fox from the occupied nonmaternity den by installation of one-way doors at burrow entrances, monitoring of the den for 7 days to confirm usage has been discontinued, and excavation and collapse of the den. Passive relocation occurs by slowly excavating the burrow (either by hand or by 	

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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>mechanized equipment) under the direct supervision of a qualified biologist and removing no more than 4 inches (10 centimeters) of soil at a time. Passive relocation cannot occur during the pup-rearing season unless remote camera monitoring has documented the den as a non-maternity den. A written report documenting the passive relocation shall be provided to the Kern County Planning and Natural Resources Department within 30 days of relocation.</p> <p>4. Dens or burrows that are determined to be inactive as determined by a qualified biologist within the Project site, shall be collapsed by a qualified biologist to prevent occupation of the den between the time of the preconstruction survey and construction activities.</p> <p>MM 4.4-13: Prior to the issuance of a grading permit, the project proponent/operator shall develop a Joshua Tree Preservation Plan. The Plan shall be prepared by a qualified biologist pre-approved by Kern County and shall be approved by the appropriate agencies, including Kern County, prior to implementation. At a minimum, the plan shall identify the methods utilized, as applicable, that the project is taking to comply with any CDFW CESA and Western Joshua Tree Conservation Act take requirements and compensatory mitigation related to the protection or mitigation of impacted Joshua Trees and documentation of any such CDFW take authorization and mitigation shall be provided to the Kern County Planning and Natural Resources Department.</p> <p>MM 4.4-14: Prior to the issuance of grading or building permits, a raven management plan shall be developed for the Project site in consultation with the USFWS and CDFW. This plan shall include but is not limited to:</p> <ol style="list-style-type: none"> 1. Identification of all raven nests observed within the Project site during construction. 2. Weekly inspection under all nests in the Project site for evidence of raven predation on local wildlife (bones, carcasses, and the like), and, if evidence of predation is noted, submit a report to CDFW, USFWS, and the Kern County Planning and Natural Resources Department within 5 calendar days. 3. Provisions for the management of trash and water that could attract common ravens during the construction and operation phases of the Project. <ol style="list-style-type: none"> a. The Project proponent/operator shall be required to participate in the regional comprehensive raven management plan to address biological 	

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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>resources; the Project proponent/operator shall be subject to compensation through the payment of a one-time fee not to exceed \$150 and no less than \$105 per disturbed acre, as established by the Desert Managers Group. Payment shall be made prior to starting construction activities. Evidence of the USFWS and/or CDFW determination and payment of any required fees shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>b. The project proponent/operator shall be required to participate in the regional comprehensive raven management plan to address biological resources; the project proponent/operator shall be subject to compensation through the payment of a one-time fee not to exceed \$150 and no less than \$105 per disturbed acre, as established by the Desert Managers Group. Payment shall be made prior to starting construction activities. Evidence of the USFWS and/or CDFW determination and payment of any required fees shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>MM 4.4-15: The project proponent/operator shall install power lines in conformance with Avian Power Line Interaction Committee (APLIC) standards for electrocution-reducing techniques as outlined in Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (APLIC, 2006), and the collision-reducing techniques outlined in Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (APLIC, 2012), or any superseding document issued by APLIC.</p> <p>MM 4.4-16: During the operation and maintenance phase of the project, an <i>Avian Mortality Monitoring Program</i> shall be developed and implemented to systematically and periodically determine the extent of mortality occurring because of collisions with solar arrays. The measures listed below would apply to the program:</p> <p>a. The Avian Mortality Monitoring Program shall be developed following the Mortality Monitoring Design for Utility-Scale Solar Power Facilities and include methods to achieve Objective 1 (monitoring to estimate total bird and bat mortality). Methods include using a trained and skilled team of authorized biologists to systematically sample the project site by walking transects through the solar arrays scanning for deceased birds.</p>	

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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> b. Data shall be collected on any encountered deceased bird (or any other wildlife) species including species, condition of the carcass, approximate age, presence of feathers, and the like. c. Additionally, maintenance personnel working on the project site that encounter injured or deceased birds (or any other wildlife) should be trained to collect data and photograph the encountered species. d. Mortality monitoring shall be conducted for a minimum of 1-year period following the commencement of the operation and maintenance phase of the project. e. If, after 1 year of mortality monitoring, project impacts to any avian species caused by the project are shown to result in a substantial, long-term reduction in the demographic viability of the population of the species in question, then adaptive management must be implemented to reduce impacts. Adaptive management measures may include but not be limited to passive avian diverter installations, the use of sound, light or other means to discourage site use consistent with legal requirements, on site habitat management or control measures consistent with applicable legal requirements, or modification to support structures to exclude nesting birds. 	
		MM 4.4-17:	
		<ul style="list-style-type: none"> a. Pre-construction surveys for Crotch’s bumble bee and nests shall be conducted within all suitable habitat prior to initial ground-disturbing activities. Surveys shall follow the survey methodologies set out in the CDFW Survey Considerations for CESA Candidate Bumble Bee (CDFW, 2023g). The surveys can be phased with project build-out. The purpose of this survey will be to identify active nest colonies inside of permanent and temporary impact areas. <ul style="list-style-type: none"> i. If active Crotch’s bumble bee nests are present within the project footprint or a 50-foot buffer surrounding the project footprint, an appropriate no disturbance buffer zone should be established around the nest to reduce the risk of disturbance or accidental take. The buffer will provide at least 50 feet of clearance around nest entrances. ii. If establishment of a no-work buffer is feasible, construction activities will not occur within the no-work buffer until a qualified biologist determines that the colony is no longer active (i.e., no Crotch’s bumble bees are seen flying in or out of the nest for three consecutive days 	

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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>indicating the colony has completed its nesting season and the next season’s queens have dispersed from the colony). Once the nest has been determined inactive, construction activities within the no-work buffer(s) will be allowed to resume.</p> <p>iii. If avoidance of the nest is not feasible, the project proponent/operator shall consult with the CDFW regarding potential for project activities to result in take of the Crotch’s bumble bee and shall comply with all avoidance, minimization, and compensatory mitigation requirements set forth in any ITP issued for the project by CDFW authorizing take of the species.</p> <p>b. Mowing shall be minimized as much as feasible. In areas where mowing is needed, the following measures to minimize potential take of Crotch’s bumble bee will be followed: 1) mow outside of the blooming season, if feasible; 2) mow at the highest cutting height possible to avoid disturbing nests or overwintering queens; 3) avoid mowing from noon into the afternoon, the time of day when pollinators are most active; and 4) mow at speeds less than 8 mph.</p> <p>c. During construction, operations, and decommissioning, vehicles onsite will not exceed a speed of 15 mph. This requirement will be posted with signage noted throughout the site.</p> <p>d. All on-site personnel shall be required to attend the Worker Environmental Awareness Training Program that includes education program as it pertains to Crotch’s bumble bee.</p> <p><u>MM 4.4-20: During the appropriate survey season prior to the start of project ground disturbance activities, a focused desert tortoise survey consistent with the USFWS 2019 desert tortoise survey protocol shall be conducted by a qualified biologist in the project areas identified on Figure 4.4-1, Focused Desert Survey Areas. Should surveys indicate the presence or potential presence of desert tortoise, CDFW shall be consulted to determine the necessity for the Project to obtain an ITP, pursuant to Fish and Game Code section 2081 subdivision (b). If no evidence of these special-status species is detected, no further action is required.</u></p>	
<p>Impact 4.4-2: The project would have a substantial adverse effect on any riparian</p>	<p>Potentially significant</p>	<p>MM 4.4-18: Prior to issuance of any grading or building permit, the project proponent/operator shall submit to Kern County a jurisdictional delineation report detailing all identified ephemeral drainages within the project boundary. The report</p>	<p>Less than significant</p>

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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.		shall include information as shown below as a plan if necessary and shall outline compliance with the following: <ol style="list-style-type: none"> a. Clearly identify jurisdictional features identified in the jurisdictional delineation that cannot feasibly be avoided. This may be shown in plan form. b. Any material/spoils generated from project activities shall be located away from jurisdictional areas or special-status habitat and protected from storm water run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers, as appropriate. c. Materials shall be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage from contaminating the ground and generally at least 50 feet from the top of bank. d. Any spillage of material will be stopped if it can be done safely. The contaminated area will be cleaned and any contaminated materials properly disposed. For all spills, the project foreman or designated environmental representative will be notified. <p>MM 4.4-19: If jurisdictional features cannot be avoided, the project proponent/operator shall be subject to provisions as identified below:</p> <ol style="list-style-type: none"> a. If avoidance is not practical, prior to ground disturbance activities that could impact these aquatic features, the project proponent/operator shall file a complete Report of Waste Discharge with the Regional Water Quality Control Board to obtain Waste Discharge Requirements and shall also consult with the California Department of Fish and Wildlife on the need for a streambed alteration agreement. Copies of the final report shall be submitted to the County. b. Based on consultation with the Regional Water Quality Control Board and California Department of Fish and Wildlife, if permits are required for the project site, appropriate permits shall be obtained prior to disturbance of jurisdictional resources. c. Compensatory mitigation for impacts to jurisdictional streambeds/washes shall be identified prior to disturbance of the features at a minimum 1:1 ratio, as approved by the Regional Water Quality Control Board or California Department of Fish and Wildlife either through onsite or offsite mitigation, or purchasing credits from an approved mitigation bank. 	

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		<ul style="list-style-type: none"> d. The project proponent/operator shall comply with the compensatory mitigation required and proof of compliance, along with copies of permits obtained from the Regional Water Quality Control Board and/or California Department of Fish and Wildlife shall be provided to the County. e. A Habitat Mitigation and Monitoring Plan shall be prepared that outlines the compensatory mitigation in coordination with the Regional Water Quality Control Board and California Department of Fish and Wildlife. <ul style="list-style-type: none"> 1. If onsite mitigation is proposed, the Habitat Mitigation and Monitoring Plan shall identify those portions of the site, such as relocated drainage routes, that contain suitable characteristics (e.g., hydrology) for restoration. Determination of mitigation adequacy shall be based on comparison of the restored habitat with similar, undisturbed habitat in the site vicinity (such as upstream or downstream of the site). 2. The Habitat Mitigation and Monitoring Plan shall include remedial measures in the event that performance criteria are not met. 3. If mitigation is implemented offsite, mitigation lands shall be comprised of similar or higher quality and preferably located in Kern County. Offsite land shall be preserved through a deed restriction or conservation easement and the Habitat Mitigation and Monitoring Plan shall identify an approach for funding assurance for the long-term management of the conserved land. Alternatively, the applicant may purchase credits from an approved mitigation bank. 4. 4. Copies of any coordination, permits, etc., with the Regional Water Quality Control Board and California Department of Fish and Wildlife shall be provided to the County. 	
<p>Impact 4.4-3: The project would have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal,</p>	<p>Less than significant</p>	<p>No mitigation measures are required.</p>	<p>Less than significant</p>

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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
filling, hydrological interruption, or other means.			
Impact 4.4-4: The project would interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.4-5: The proposed project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Potentially significant	Implementation of Mitigation Measures MM 4.4-1 through MM 4.1-1920 is required.	Less than significant
Impact 4.4-6: The project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	Less than significant	No mitigation measures are required.	Less than significant

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Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.4: Cumulative Impacts	Potentially significant	Implementation of Mitigation Measures <u>MM 4.1-1, MM 4.1-3, MM 4.1-5, MM 4.1-6, MM 4.1-7, MM 4.3-2, MM 4.3-3, MM 4.9-2, MM 4.10-1, 4.10-2, MM 4.13-1, MM 4.1-5</u> and <u>MM 4.4-1 through MM 4.4-1920</u> are required.	Significant and unavoidable
4.5 Cultural Resources			
Impact 4.5-1: The project would cause a substantial adverse change in the significance of a historical resource as defined in CEQA <i>Guidelines</i> Section 15064.5.	Potentially significant	<p>MM 4.5-1: The project proponent/operator shall retain a Lead Archaeologist, defined as an archaeologist meeting the Secretary of the Interior’s Standards for professional archaeology (U.S. Department of the Interior, 2011), to carry out all mitigation measures related to archaeological and unique historical resources. The contact information for this Lead Archaeologist shall be provided to the Kern County Planning and Natural Resources Department prior to the commencement of any construction activities onsite. Further, the Lead Archaeologist shall be responsible for ensuring the following employee training provisions are implemented during implementation of the project:</p> <ol style="list-style-type: none"> <li>Prior to commencement of any ground disturbing activities, the Lead Archaeologist, in consultation with Native American monitor(s), shall prepare Cultural Resources Sensitivity Training materials, including a Cultural Resources Sensitivity Training Guide, to be used in an orientation program given to all personnel working on the project. The training guide may be presented in video form. A copy of the proposed training materials shall be provided to the Planning and Natural Resources Department prior to the issuance of any grading or building permit. <li>The project proponent/operator shall ensure all new employees or onsite workers who have not participated in earlier Cultural Resources Sensitivity Trainings shall meet provisions specified above. <li>The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the Lead Archaeologist and/or Native American monitor(s) for further evaluation and action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of archaeological resources. <li>A copy of the Cultural Resources Sensitivity Training Guide/Materials shall be kept onsite and available for all personnel to review and be familiar with as necessary. It is the responsibility of the Lead Archaeologist to ensure all employees receive appropriate training before they work onsite. 	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>e. During implementation of the project, the services of Native American Monitors, as identified through consultation with appropriate Native American tribes, working under the supervision of the Lead Archaeologist, shall be retained by the project to monitor project-related ground-disturbing activities as identified in Mitigation Measure MM 4.5-2</p> <p>MM 4.5-2: Prior to the issuance of any grading or building permit, the project proponent shall submit to the Kern County Planning and Natural Resources Department a Cultural Resources Treatment Plan. The plan shall:</p> <p>a. Require that prior to conducting initial ground disturbance in the vicinity of prehistoric archaeological sites, and in coordination with the Lead Archaeologist and Native American Monitor(s), exclusion areas (i.e., the recorded boundaries of the archaeological sites and all areas within 50 feet thereof) shall be temporarily marked with exclusion markers or protective fencing as determined by the Lead Archaeologist in consultation with the Native American Monitor.</p> <p>b. Require that the construction zone shall be narrowed or otherwise altered to avoid any exclusion areas.</p> <p>c. Provide an overview of best management practices to be utilized during ground-disturbing construction activities to ensure protection of cultural resources.</p> <p>d. Outline the process for evaluation of any unanticipated cultural discoveries during project construction activities.</p> <p>e. Provide a Data Recovery Plan, if required, prepared by the Lead Archeologist in consultation with the Native American Monitor(s), for the recovery of known and unanticipated cultural discoveries that cannot be avoided or preserved in place.</p> <p>MM 4.5-3: During implementation of the project, in the event that archaeological materials are encountered during the course of grading or construction, the project contractor shall cease any ground-disturbing activities within 50 feet of the find. The area of the discovery shall be marked off by temporary fencing that encloses a 50-foot radius from the location of the discovery. Signs shall be posted that establish it as an Environmentally Sensitive Area, and all entrance into the area shall be avoided until the discovery is assessed by the Lead Archaeologist and Native American Monitor. The Lead Archaeologist, in consultation with any Native American Monitor, shall evaluate the significance of the resources and recommend appropriate treatment measures. If further treatment of the discovery is necessary, the</p>	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Environmentally Sensitive Area shall remain in place until all work is completed. Per California Environmental Quality Act (CEQA) Guidelines Section 15126.4(b)(3), project redesign and preservation in place shall be the preferred means to avoid impacts to significant historical resources.</p> <p>Consistent with CEQA <i>Guidelines</i> Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the Lead Archaeologist, in consultation with any Native American Monitor, shall develop additional treatment measures in consultation with the County of Kern (County), which may include data recovery or other appropriate measures. The County shall consult with appropriate Native American representatives in determining appropriate treatment for unearthened cultural resources if the resources are prehistoric or Native American in nature. Diagnostic archaeological materials with research potential recovered during any investigation shall be curated at an accredited curation facility. The Lead Archaeologist, in consultation with a designated Native American Monitor, shall prepare a report documenting evaluation and/or additional treatment of the resource. A copy of the report shall be provided to the Kern County Planning and Natural Resources Department and to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.</p> <p>MM 4.5-4: Prior to conducting initial ground disturbance in the vicinity of historical resources P-15-000472, P-15-13840 and WH-S-01, and in coordination with the Lead Archaeologist and the Native American monitor, an exclusion area, consisting of the archaeological site boundaries plus an additional 50-foot buffer, shall be temporarily marked with exclusion markers or protective fencing as determined by the Lead Archaeologist in consultation with the Native American monitor. For HAP SITE 6.13.1, which is located outside of the development footprint, protective fencing will be installed along the edge of the project property boundary adjacent to HAP SITE 6.13.1 so that it protects HAP SITE 6.13.1 from potential impacts from project construction. Signs shall be posted that establish these as Environmentally Sensitive Areas (ESA). ESA fencing will be installed by the project proponent under the direction of an archaeological monitor and Native American monitor, working under the supervision of the Lead Archaeologist. ESA fences will be maintained by the project proponent for the duration of construction. In the event that the fencing is damaged, the project proponent will immediately notify the Lead Archaeologist, who will assess the damage and make the appropriate notifications to the County of Kern and other stakeholders, as appropriate. The project proponent shall repair any</p>	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.5-2: The project would cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA <i>Guidelines</i> Section 15064.5.</p>	<p>Potentially significant</p>	<p>damage to the fences and take additional measures, such additional training or increase signage, to ensure that additional damage is avoided.</p> <p>Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-3 is required.</p> <p>MM 4.5-5: During implementation of the project, the services of both an Archaeological and Native American Monitor, working under the supervision of the Lead Archaeologist as identified through consultation with appropriate Native American tribes, shall be retained by the project proponent/operator to monitor, on a full-time basis, during ground-disturbing activities associated with project-related construction activities, as follows:</p> <ol style="list-style-type: none"> a. All initial ground-disturbing activities within 50 feet of prehistoric archaeological sites within the Enterprise Solar Site shall be monitored by Native American Monitor(s) and Archaeological Monitor(s). b. During implementation of the project, Archaeological and Native American monitoring shall be conducted for all initial excavation or ground-disturbing activities. If no archaeological discoveries are made during the course of this monitoring, no additional monitoring will be required. If the Lead Archaeologist can demonstrate that the level of monitoring should be reduced or discontinued, or a need for continuing monitoring, the Lead Archaeologist, in consultation with the Kern County Planning and Natural Resources Department, may adjust the level of monitoring to circumstances as warranted. c. All ground disturbing activities within 100 feet of a grave site shall be monitored by Native American Monitor(s) and Archeological Monitor(s). d. The Lead Archaeologist and Native American Monitor(s) shall be provided all project documentation related to cultural resources within the project site prior to commencement of ground disturbance activities. Should the services of any additional individuals be retained (as the Lead Archaeologist, Archaeological Monitor, or Native American Monitor) subsequent to commencement of ground disturbing activities, such individuals shall be provided all proposed project documentation related to cultural resources within the project area, prior to beginning work. Documentation shall include but not be limited to previous cultural studies, surveys, maps, drawings, etc. Any modifications or updates to project documentation, including construction plans and schedules, shall 	<p>Less than significant</p>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		immediately be provided to the Lead Archaeologist, Archaeological Monitor, and Native American Monitor.	
		e. The Archaeological Monitor(s) shall keep daily logs and the Lead Archaeologist shall submit monthly written updates to the Kern County Planning and Natural Resources Department and Native American Monitor. After monitoring has been completed, the Lead Archaeologist shall prepare a monitoring report that details monitoring results; assessment of inadvertent discoveries; communication with Tribal representatives; installation of, maintenance of, and guidance for environmentally sensitive areas; and general implementation of the required mitigation. The final monitoring report shall act as a record of compliance with guiding documents and mitigation, and shall be submitted to the Kern County Planning and Natural Resources Department and the Southern San Joaquin Valley Information Center at California State University, Bakersfield.	
Impact 4.5-3: The project would disturb any human remains, including those interred outside of formal cemeteries.	Potentially significant	MM 4.5-6: If human remains are uncovered during project construction, the project contractor shall immediately halt work within 100 feet of the find, contact the Kern County Coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 of the California Environmental Quality Act Guidelines. If the County Coroner determines that the remains are Native American, the coroner shall contact the Native American Heritage Commission, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by Assembly Bill 2641). The Native American Heritage Commission shall designate a Most Likely Descendent for the remains per Public Resources Code 5097.98. Per Public Resources Code 5097.98, and in accordance with generally accepted cultural or archeological standards or practices, the project proponent shall ensure that the immediate vicinity of the Native American human remains is not damaged or disturbed by further development activity until the project proponent has discussed and conferred with the most likely descendent regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. If the remains are determined to be neither of forensic value to the Coroner, nor of Native American origin, provisions of the California Health and Safety Code (7100 et. seq.) directing identification of the next-of-kin will apply.	Less than significant
Impact 4.5-4: Cumulative Impacts	Potentially significant	Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-6 is required.	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.6 Energy			
Impact 4.6-1: The project would result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	Potentially significant	Implementation of Mitigation Measure MM 4.3-3 would be required.	Less than significant
Impact 4.6-2: The project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.6: Cumulative Impacts	Potentially significant	Implementation of Mitigation Measure MM 4.3-3 would be required.	Less than significant
4.7 Geology and Soils			
Impact 4.7-1: The project would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo earthquake fault zoning map issued by	Potentially Significant	<p>MM 4.7.1: Prior to the issuance of building or grading permits for the project, the project proponent shall conduct a full geotechnical study in accordance with all applicable ordinances of the Kern County Building Code (Chapter 17.08) and the CBC to evaluate soil conditions and geologic hazards on the project site and submit it to the Kern County Public Works Department for review and approval.</p> <p>The project proponent shall determine the final siting of project facilities based on the results of the geotechnical study and implement recommended measures to minimize geologic hazards. The project proponent shall not locate project facilities on or immediately adjacent to an active fault trace.</p> <p>MM 4.7-2: Prior to the issuance of grading permits, the project proponent shall retain a California registered and licensed geotechnical engineer to design the project facilities to withstand probable seismically induced ground shaking at the site. All grading and construction onsite shall adhere to the specifications,</p>	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
the state geologist for the area or based on other substantial evidence of a known fault.		procedures, and site conditions contained in the final design plans, which shall be fully compliant with the seismic recommendations of the California-registered professional engineer. The Kern County Public Works Department shall evaluate any final facility siting design developed prior to the issuance of any building or grading permits to verify that geological constraints have been avoided.	
Impact 4.7-2: The project would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking, seismic-related ground failure, including liquefaction; or landslides.	Potentially significant	Implement Mitigation Measures MM 4.7-1 and MM 4.7-2, above.	Less than significant
Impact 4.7-3: The project would result in substantial soil erosion or the loss of topsoil.	Potentially significant	Implement Mitigation Measures MM 4.7-1 and MM 4.7-2 , above and MM 4.10-1 described below in <i>Hydrology and Water Quality</i> .	Less than significant
Impact 4.7-4: The project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Potentially significant	Implement Mitigation Measures MM 4.7-1 and MM 4.7-2 , above.	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.7-5: The project would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.</p>	<p>Potentially significant</p>	<p>Implement Mitigation Measures MM 4.7-1 and MM 4.7-2, above.</p>	<p>Less than significant</p>
<p>Impact 4.7-6: The project would have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater.</p>	<p>No impact</p>	<p>No mitigation measures are required.</p>	<p>No impact</p>
<p>Impact 4.7-7: The project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, as defined in CEQA <i>Guidelines</i> Section 15064.</p>	<p>Potentially significant</p>	<p>MM 4.7-3: The project proponent shall retain a qualified paleontologist, defined as a paleontologist meeting the Society for Vertebrate Paleontology’s Professional Standards (SVP, 2010), to carry out all mitigation measures related to paleontological resources:</p> <ol style="list-style-type: none"> a. Prior to the start of any ground disturbing activities, the qualified paleontologist shall prepare a Paleontological Resources Awareness Training program for all construction personnel working on the project. A Paleontological Resources Awareness Training Guide approved by the qualified paleontologist shall be provided to all personnel. A copy of the Paleontological Resources Awareness Training Guide shall be submitted to the Kern County Planning and Natural Resources Department. The training guide may be presented in video form. b. Paleontological Resources Awareness Training may be conducted in conjunction with other awareness training requirements. c. The training shall include an overview of potential paleontological resources that could be encountered during ground disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the 	<p>Less than significant</p>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>qualified paleontologist for further evaluation and action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of paleontological resources.</p> <p>d. The project operator shall ensure all new employees who have not participated in earlier Paleontological Resources Sensitivity Trainings shall meet the provisions specified above.</p> <p>e. The Paleontological Resources Awareness Training Guides shall be kept onsite and available for all personnel to review and be familiar with as necessary.</p> <p>MM 4.7-4: During construction, the qualified paleontologist or designated monitor shall monitor all ground-disturbing activities (with the exception of vibratory or hydraulic installation of tracking or mounting structures and foundations or supports) that occurs at a depth of 15 feet or deeper below ground surface. Following completion of monitoring, the paleontologist shall prepare a report documenting the absence or discovery of fossil resources on site.</p> <p>MM 4.7-5: If a paleontological resource is found, the project contractor shall cease ground-disturbing activities within 50 feet of the find. The qualified paleontologist shall evaluate the significance of the resources and recommend appropriate treatment measures. At each fossil locality, field data forms shall be used to record pertinent geologic data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis. Any fossils encountered and recovered shall be catalogued and donated to a public, non-profit institution with a research interest in the materials. Accompanying notes, maps, and photographs shall also be filed at the repository.</p>	
Impact 4.7: Cumulative Impacts	Less than significant	Implementation of Mitigation Measure MM 4.7-1 through MM 4.7-5 , as described above, and MM 4.10-1, described below, is required.	Less than significant
4.8 Greenhouse Gas Emissions			
Impact 4.8-1: The project would generate greenhouse gas emissions, either directly or indirectly, that may	Less than significant	No mitigation measures are required.	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
have a significant impact on the environment.			
Impact 4.8-2: The project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.8: Cumulative Impacts	Less than significant	No mitigation measures are required.	Less than significant
4.9 Hazards and Hazardous Materials			
Impact 4.9-1: The project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Potentially significant	<p>MM 4.9-1: During the life of the project, including decommissioning, the project proponent/operator shall prepare and maintain a Hazardous Materials Business Plan (HMBP), as applicable, pursuant to Article 1 and Article 2 of California Health and Safety Code 6.95 and in accordance with Kern County Ordinance Code 8.04.030, by submitting all the required information to the California Environmental Reporting System (CERS) at http://cers.calepa.ca.gov/ for review and acceptance by the Kern County Environmental Health Services Division/Hazardous Materials Section. The HMBP shall:</p> <ol style="list-style-type: none"> a. Delineate hazardous material and hazardous waste storage areas b. Describe proper handling, storage, transport, and disposal techniques c. Describe methods to be used to avoid spills and minimize impacts in the event of a spill d. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction and operation e. Establish public and agency notification procedures for spills and other emergencies including fires f. Include procedures to avoid or minimize dust from existing residual pesticides and herbicides that may be present on the site. 	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.9-2: The project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.</p>	<p>Potentially significant</p>	<p>The project proponent shall ensure that all contractors working on the project are familiar with the facility’s HMBP as well as ensure that one copy is available at the project site at all times. In addition, a copy of the accepted HMBP from CERS shall be submitted to the Kern County Planning and Natural Resources Department for inclusion in the projects permanent record.</p> <p>Implementation of Mitigation Measure MM 4.9-1, described above, is required.</p> <p>MM 4.9-2: The project proponent/operator shall continuously comply with the following:</p> <ol style="list-style-type: none"> a. The construction contractor or project personnel shall use herbicides that are approved for use in California and are appropriate for application adjacent to natural vegetation areas (i.e., non-agricultural use). Personnel applying herbicides shall have all appropriate State and local herbicide applicator licenses and comply with all State and local regulations regarding herbicide use. b. Herbicides shall be mixed and applied in conformance with the manufacturer’s directions. c. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and safety data sheets for all hazardous materials to be used. To minimize harm to wildlife, vegetation, and water bodies, herbicides shall not be applied directly to wildlife. d. Products identified as non-toxic to birds and small mammals shall be used if nests or dens are observed; and herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water. e. Herbicides shall not be applied when wind velocity exceeds 10 miles per hour. If spray is observed to be drifting to a non-target location, spraying shall be discontinued until conditions causing the drift have abated. f. A written record of all herbicide applications on the site, including dates and amounts, shall be furnished annually to the Kern County Planning and Natural Resources Department. 	<p>Less than significant</p>
<p>Impact 4.9-3: The project would emit hazardous emissions or involves handling hazardous or acutely</p>	<p>Less than significant</p>	<p>No mitigation measures are required.</p>	<p>Less than significant</p>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.			
Impact 4.9-4: The project would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.9-5: The project would result in a safety hazard or excessive noise for people residing or working in the project area, for a project located within the vicinity of a private airstrip.	Potentially significant	<p>MM 4.9-3: Prior to the issuance of building and grading permits, the project proponent/operator shall comply with the following:</p> <ul style="list-style-type: none"> a. Submit Form 7460-1 (Notification of Proposed Construction or Alteration) to the Federal Aviation Administration, in the form and manner prescribed in Code of Federal Regulation 77.17. b. Obtain a Federal Aviation Administration issued “Determination of No Hazard to Air Navigation.” This documentation shall include written concurrence from the military authority responsible for operations in the flight area depicted in the Kern County Zoning Ordinance Figure 19.08.160 that all project components in the flight area would create no significant military mission impacts. c. Provide documentation to the Kern County Planning and Natural Resources Department demonstrating that a copy of the final site plans have been provided to the operators of Mojave Air Space and Port. <p>MM 4.9-4: Prior to issuance of building and grading permits, the project proponent/operator shall comply with the following:</p> <ul style="list-style-type: none"> a. Submit the project plans to the Edwards AFB for review if any project components would exceed 100 feet in height. 	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		b. Obtain written concurrence that the height of the proposed project components would create no significant military mission impacts. c. Alternatively, in instances where the required written concurrence from the military is requested but not received within a reasonable period of time, the height exceedances may be considered for approval by the County Board of Supervisors upon a finding that the benefits of the requested height deviation outweigh the potential impacts on military flight operations.	
Impact 4.9-6: The project would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan	Potentially significant	Implementation of Mitigation Measure MM 4.15-1 is required.	Less than significant
Impact 4.9-7: The project would expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	Potentially significant	Implementation of Mitigation Measure MM 4.14-1 is required.	Less than significant
Impact 4.9-8: The project would generate vectors (flies, mosquitoes, rodents, etc.) or have a component that includes agricultural waste?	Less than significant	No mitigation measures are required.	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Specifically, would the proposed project exceed the following qualitative threshold: the presence of domestic flies, mosquitoes, cockroaches, rodents, and/or any other vectors associated with the proposed project is significant when the applicable enforcement agency determines that any of the vectors:</p> <ul style="list-style-type: none"> i. Occur as immature stages and adults in numbers considerably in excess of those found in the surrounding environment; or ii. Are associated with design, layout, and management of proposed project operations; or iii. Disseminate widely from the property; or iv. Cause detrimental effects on the public health or well-being of the majority of the surrounding population. 			

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.9: Cumulative Impacts	Potentially significant	Implementation of Mitigation Measures MM 4.9-1, MM 4.9-2, MM 4.9-3, MM 4.9-4, MM 4.14-1, and MM 4.15-1 , is required.	Less than significant
4.10 Hydrology and Water Quality			
Impact 4.10-1: The project would violate water quality standards or waste discharge requirements, or otherwise degrade water quality.	Potentially significant	Implementation of Mitigation Measure MM 4.9-1 would be required (see Section 4.9, <i>Hazards and Hazardous Materials</i> , for full mitigation measure text). MM 4.10-1: Prior to issuance of a grading permit, the project proponent/operator shall submit a Stormwater Pollution Prevention Plan (SWPPP) for review and approval by the Kern County Planning and Natural Resources Department and/or Kern County Public Works Department. The SWPPP shall be designed to minimize runoff and shall specify best management practices to prevent all construction pollutants from contacting stormwater, with the intent of keeping sediment or any other pollutants from moving offsite and into receiving waters. The requirements of the SWPPP shall be incorporated into design specifications and construction contracts. Recommended best management practices to be incorporated in the SWPPP may include the following: a. Minimization of vegetation removal; b. Implementing sediment controls, including silt fences a necessary; c. Installation of a stabilized construction entrance/exit and stabilization of disturbed areas; d. Properly containing and disposing of hazardous materials used for construction onsite; e. Properly covering stockpiled soils to prevent wind erosion; f. Proper protections and containment for fueling and maintenance of equipment and vehicles; and g. Appropriate disposal of demolition debris, concrete and soil, and aggressively controlling litter. h. Cleanup of silt and mud on adjacent street due to construction activity. i. Checking all lined and unlined ditches after each rainfall.	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> j. Restore all erosion control devices to working order to the satisfaction of the Kern County Planning and Natural Resources Department and/or Kern County Public Works Department after each rainfall run-off. k. Install additional erosion control measures as may be required due to uncompleted grading operations or unforeseen circumstances which may arise. <p>MM 4.10-2: Prior to the issuance of a grading permit, the project proponent/operator shall complete a hydrologic study and final drainage plan designed to evaluate and minimize potential increases in runoff from the project site. The study shall include, but is not limited to the following:</p> <ul style="list-style-type: none"> a. A numerical stormwater model for the project site that evaluates existing and proposed (with project) drainage conditions during storm events ranging up to the 100-year event. b. The study shall also consider potential for erosion and sedimentation in light of modeled changes in stormwater flow across the project area that would result from project implementation. c. Engineering recommendations to be incorporated into the project design and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding onsite or offsite. d. A specification that the final design of the solar arrays shall include one foot of freeboard clearance above the calculated maximum flood depths for the solar arrays or the finished floor of any permanent structures. Solar panel sites located within a 100-year floodplain shall be graded to direct potential flood waters without increasing the water surface elevations more than one foot or as required by Kern County’s Floodplain Management Ordinance. e. The hydrologic study and drainage plan shall be prepared in accordance with the Kern County Grading Code and Kern County Development Standards, and approved by the Kern County Public Works Department prior to the issuance of grading permits. 	
<p>Impact 4.10-2: The project would substantially deplete</p>	<p>Less than significant</p>	<p>No mitigation measures are required.</p>	<p>Less than significant</p>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.	Potentially significant	Implementation of Mitigation Measures MM 4.10-1 and MM 4.10-2 is required.	Less than significant
Impact 4.10-3: The project would substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion and/or sedimentation on-site or off-site.	Potentially significant	Implementation of Mitigation Measure MM 4.10-1 and MM 4.10-2 is required.	Less than significant
Impact 4.10-4: The project would substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in flooding onsite or offsite.	Potentially significant	Implementation of Mitigation Measure MM 4.10-1 and MM 4.10-2 is required.	Less than significant
Impact 4.10-5: The project would create or contribute runoff water	Potentially significant	Implementation of Mitigation Measure MM 4.10-1 and MM 4.10-2 is required.	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.			
Impact 4.10-6: The project would place within a 100-year flood hazard area structures that would impede or redirect flood flows.	Potentially significant	Implementation of Mitigation Measure MM 4.10-1 and MM 4.10-2 is required.	Less than significant
Impact 4.10-7: The project would result in a flood hazard, tsunami, or seiche zone, and risk release of pollutants due to project inundation.	Potentially significant	Implementation of Mitigation Measure MM 4.10-1 and MM 4.10-2 is required.	Less than significant
Impact 4.10-8: The project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.10: Cumulative Impacts	Potentially significant	Implementation of Mitigation Measures MM 4.9-1 , MM 4.10-1 , and MM 4.10-2 is required.	Less than significant
4.11 Land Use			
Impact 4.11-1: The project would physically divide an established community.	Less than significant	No mitigation measures are required.	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.11-2: The project would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.</p>	<p>Less than significant</p>	<p>No mitigation measures are required.</p>	<p>Less than significant</p>
<p>Impact 4.11: Cumulative Impacts</p>	<p>Potentially significant</p>	<p>MM 4.11-1: Prior to issuance of any building permit, the project operator shall provide a Decommission Plan for review and approval by the Kern County Engineering, Surveying, and Permit Services Department or a County-contracted consulting firm at a cost to be borne by the project operator. The Decommission Plan shall factor in the cost to remove the solar panels and support structures, replacement of any disturbed soil from removal of support structures, and control of fugitive dust on the remaining undeveloped land. Salvage value for the solar panels and support structures shall be included in the financial assurance calculations. The assumption, when preparing the estimate, is that the project operator is incapable of performing the work or has abandoned the solar facility, thereby requiring Kern County to hire an independent contractor to perform the decommissioning work. In addition to submitting a Decommission Plan, the project operator shall post or establish and maintain financial assurances with Kern County related to the deconstruction of the site as identified on the approved Decommission Plan in the event that at any point in time the project operator determines it is not in the company’s best interest to operate the facility.</p> <p>The financial assurance required prior to issuance of any building permit shall be established using one of the following:</p> <ol style="list-style-type: none"> a. An irrevocable letter of credit; b. A surety bond; c. A trust fund in accordance with the approved financial assurances to guarantee the deconstruction work will be completed in accordance with the approved decommission plan; or 	<p>Less than significant</p>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<u>Impact 4.11:</u> <u>Cumulative Impacts</u>	<u>Potentially significant</u>	<p>d. Other financial assurances as reviewed and approved by the respective County administrative offices, in consultation with the Kern County Planning and Natural Resources Department.</p> <p>The financial institution or Surety Company shall give the County at least 180 days’ notice of intent to terminate the letter of credit or bond. Financial assurances shall be reviewed annually by the Kern County Engineering, Surveying, and Permit Services Department or County contracted consulting firm(s) at a cost to be borne by the project operator to substantiate those adequate funds exist to ensure deconstruction of all solar panels and support structures identified on the approved Decommission Plan. Should the project operator deconstruct the site on their own, the County will not pursue forfeiture of the financial assurance.</p> <p>Once deconstruction has occurred, financial assurance for that portion of the site will no longer be required and any financial assurance posted shall be adjusted or returned accordingly. Any funds not utilized through decommission of the site by the County shall be returned to the project operator.</p> <p>Should any portion of the solar field not be in operational condition for a consecutive period of twelve 12 months that portion of the site shall be deemed abandoned and shall be removed within sixty (60) days from the date a written notice is sent to the property owner and solar field owner, as well as the project operator, by the County. Within this sixty (60) day period, the property owner, solar field owner, or project operator may provide the director of the Kern County Planning and Natural Resources Department a written request and justification for an extension for an additional twelve (12) months. The Kern County Planning and Natural Resources Director shall consider any such request at a Director’s Hearing as provided for in Section 19.102.070 of the Kern County Zoning Ordinance. In no case shall a solar field that has been deemed abandoned be permitted to remain in place for more than forty-eight (48) months from the date, the solar facility was first deemed abandoned.</p> <p>MM 4.11-2: Prior to the operation of the solar facility, the operator shall consult with the Department of Defense and Mojave Air and Space Port to identify the appropriate Frequency Management Office officials to coordinate the use of telemetry to avoid potential frequency conflicts with military and facility operations.</p>	<u>Less than significant</u>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.12 Mineral Resources			
Impact 4.12-1: The project would result in the loss of availability of a known mineral resource that would be of value to the region and residents of the State.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.12-2: The project would result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.12: Cumulative Impacts	Less than significant	No mitigation measures are required.	Less than significant
4.13 Noise			
Impact 4.13-1: The project would result in generation of a substantial temporary or permanent increase in the ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies.	Potentially significant	<p>MM 4.13-1: The following measures are to be implemented to further reduce short-term noise levels associated with project construction and decommissioning:</p> <p>a. Construction and decommissioning activities at the project site shall comply with the hourly restrictions for noise-generating construction activities, as specified in the County’s Code of Ordinances, Chapter 8.36. Accordingly, construction activities shall be prohibited between the hours of 9:00 p.m. to 6:00 a.m. on weekdays, and between 9:00 p.m. to 8:00 a.m. on weekends, which is audible to a person with average hearing faculties or capacity at a distance of one hundred fifty (150) feet from the construction site, if the construction site is within one thousand (1,000) feet of an occupied residential dwelling. These hourly limitations shall not apply to activities where hourly limitations would result in increased safety risk to workers or the public, such as commissioning and maintenance activities that must occur after dark to ensure photovoltaic</p>	Less than Significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		arrays are not energized, unanticipated emergencies requiring immediate attention, or security patrols.	
		b. Equipment staging shall be located in areas that will create the greatest distance between construction- related noise sources and noise-sensitive receptors nearest the project site during construction to the extent practical. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site, where feasible.	
		c. Construction equipment shall be fitted with noise- reduction features such as mufflers and engine shrouds that are no less effective than those originally installed by the manufacturer.	
		d. Haul trucks shall not be allowed to idle for periods greater than five minutes, except as needed to perform a specified function (e.g., concrete mixing).	
		e. Onsite vehicle speeds shall be limited to 15 miles per hour, or less (except in cases of emergency).	
		f. Back-up beepers for all construction equipment and vehicles shall be broadband sound alarms or adjusted to the lowest noise levels possible, provided that the Occupational Safety and Health Administration and California Division of Occupational Safety and Health’s safety requirements are not violated. On vehicles where back-up beepers are not available, alternative safety measures such as escorts and spotters shall be employed.	
		MM 4.13-2: Prior to the issuance of grading permits, the construction contractor shall establish a Noise Disturbance Coordinator for the project during construction. The Noise Disturbance Coordinator shall be responsible for responding to any complaints about construction noise. The Noise Disturbance Coordinator shall determine the cause of the complaint and shall be required to implement reasonable measures to resolve the complaint. Contact information for the Noise Disturbance Coordinator shall be submitted to the Kern County Planning and Natural Resources Department prior to commencement of any ground disturbing activities.	
		MM 4.13-3: Prior to commencement of any onsite construction activities (i.e., fence construction, mobilization of construction equipment, initial grading, etc.), the project proponent/operator shall provide written notice to the public through mailing a notice, which shall include:	
		a. The mailing notice shall be to all residences within 1,000 feet of the project site, 15 days or less prior to construction activities. The notices shall include the	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>construction schedule and a telephone number and email address where complaints and questions can be registered with the noise disturbance coordinator.</p> <p>b. A minimum of one sign, legible at a distance of 50 feet, shall be posted at the construction site, or adjacent to the nearest public access to the main construction entrance, throughout construction activities that shall provide the construction schedule (updated as needed) and a telephone number where noise complaints can be registered with the noise disturbance coordinator.</p> <p>c. Documentation that the public notice has been sent and the sign has been posted shall be provided to the Kern County Planning and Natural Resources Department.</p> <p>MM 4.13-4: Adequate noise shielding shall be provided to the project’s onsite transformers and inverters such that the existing ambient noise level at offsite residential receptors would not exceed 65 L_{dn} and interior noise levels would not exceed 45 dB L_{dn}. For any portion of the project within five hundred (500) feet of property developed residentially and zoned for residential use (E, R-1, R-2, and R-3), except those portions within the M-3 District, adequate noise shielding shall be provided to the project’s onsite transformers and inverters such that the equipment would not exceed an average 65 dB L_{dn} (24 hour median) between the hours of 7:00 a.m. and 10:00 p.m. and would not exceed 65 dB, or result in an increase of 5 dB or more from ambient sound levels, whichever is greater, between the hours of 10:00 p.m. and 7:00 a.m. The project proponent/operator shall submit photographic evidence of this technology and clearly demonstrate on a site plan where adequate noise shielding will be located, if necessary. No shielding shall be required if the noise levels would not exceed these standards.</p>	
<p>Impact 4.13-2: The project would expose persons to or generate excessive ground borne vibration or ground borne noise levels.</p>	<p>Less than significant</p>	<p>No mitigation measures are required.</p>	<p>Less than significant</p>
<p>Impact 4.13-3: The project would create a substantial permanent</p>	<p>Less than significant</p>	<p>No mitigation measures are required.</p>	<p>Less than significant</p>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
increase in ambient noise levels in the project vicinity above levels existing without the project.			
Impact 4.13: Cumulative Impacts	Potentially significant	Implementation of Mitigation Measures MM 4.13-1 through MM 4.13-4 is required.	Less than significant
4.14 Public Services			
Impact 4.14-1: The project would result in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services or police protection and law enforcement services.	Potentially significant	<p>MM 4.14-1: Prior to the issuance of grading or building permits, the project proponent/operator shall develop and implement a Fire Safety Plan for use during construction, operation and decommissioning.</p> <p>The project proponent/operator shall submit the plan, along with maps of the project site and access roads, to the Kern County Fire Department for review and approval. A copy of the approved Fire Safety Plan shall be submitted to the Kern County Planning and Natural Resources Department. The Fire Safety Plan shall contain notification procedures and emergency fire precautions including, but not limited to, the following:</p> <ol style="list-style-type: none"> a. All internal combustion engines, both stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order. b. Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. These vehicle types will maintain their factory-installed (type) muffler in good condition. c. Fire rules shall be posted on the project bulletin board at the contractor’s field office and areas visible to employees. d. Equipment parking areas and small stationary engine sites shall be cleared of all extraneous flammable materials. e. Personnel shall be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires to prevent them from growing into more serious threats. f. The project proponent/operator shall make an effort to restrict the use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to periods outside of the official fire season. When the 	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>above tools are used, water tanks equipped with hoses, fire rakes, and axes shall be easily accessible to personnel.</p> <p>g. Building plans shall be included for the energy storage system to verify adherence to County and California Building Code standards.</p> <p>MM 4.14-2: The following Cumulative Impact Charge (CIC) shall be implemented as an annual payment due every year for the life of the project, or as a lump sum payment for multiple years, until the project is decommissioned and the Conditional Use Permit is voided.</p> <p>a. Submittal of Building Permit</p> <ol style="list-style-type: none"> 1. Any building permit submitted shall be accompanied by a map and legal description of the entire approved Conditional Use Permit area. 2. The map shall calculate the CIC net acreage as follows: <ol style="list-style-type: none"> A. Total gross acreage of the approved Conditional Use Permit. B. Total acres for Operations and Maintenance building and permanent accessory improvements. C. Total acres for Energy Storage structure and permanent accessory improvements, if full reassessed property taxes are paid. D. Total acres of recorded easements. 3. Formula is Net Acreage = 2.A minus the sum of [2.B + 2.C + 2.D]. 4. Temporary storage areas or non-permanent commercial coaches or cargo containers for construction or operations are not eligible for inclusion under 2.B or 2.C, above. 5. All areas of buildings, accessory improvements and easements used in the calculations shall be shown on the submitted Map. <p>b. Calculation of Cumulative Impact Charge (CIC) and annual payment</p> <ol style="list-style-type: none"> 1. A payment of \$550 per net acre shall be paid annually for all acres in the approved Conditional Use Permit regardless of phased implementation of building permits, the total number of building permits, or type of building permit issued. 	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ol style="list-style-type: none"> 2. The first payment is due upon issuance of the first building permit. If it is not paid within 30 days after issuance of the first building permit, all such permits shall be suspended until the fee is paid in full. 3. Annual payments are due every year on the date of the first building permit issuance. 4. Payments shall be made to the Planning and Natural Resources Department for transfer directly to the County Administrative Office Fiscal Division (CAO) and labeled Cumulative Impact Charge (CIC) with the project name, location and APNs. 5. Any acres denoted for an operation and maintenance building or energy storage that is not built, cannot be used for solar panels unless payment is provided for the Cumulative Impact Charge (CIC). 6. An advance payment option for a lump sum of all payment years, or a reduction in each year’s payment for 5 or more years, may be requested by submittal of a written request to the Planning and Natural Resources Department with details of the offer no later than 60 days before the yearly payment is due. A 10% discount in the lump sum amount will be applied if the advance payment option is accepted by the County Administrative Office Fiscal Division (CAO) by written response. 	
		<p>MM 4.14-3: Written verification of ownership of the project shall be submitted to the Kern County Planning and Natural Resources Department by April 15 of each calendar year. If the project is sold to a city, county, or utility company with assessed taxes that total less than \$3,000 per megawatt per year, then a Supplemental Cumulative Charge (SCIC) shall be paid for the difference annually up to \$3,000 per megawatt. The SCIC payments shall be made annually directly to the County Administrative Office (CAO) Fiscal Division and labeled “Supplemental Cumulative Impact Charge (SCIC)” with the project name and phase number.</p>	
		<p>MM 4.14-4: The project proponent/operator shall work with the County to determine how the use of sales and use taxes from construction of the project can be maximized. This process shall include, but is not necessarily limited to, the project proponent/operator obtaining a street address within the unincorporated portion of Kern County for acquisition, purchasing and billing purposes, and registering this address with the State Board of Equalization. As an alternative to the aforementioned process, the project proponent/operator may make arrangements</p>	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>with Kern County for a guaranteed single payment that is equivalent to the amount of sales and use taxes that would have otherwise been received (less any sales and use taxes actually paid); with the amount of the single payment to be determined via a formula approved by Kern County. The project proponent/operator shall allow the County to use this sales tax information publicly for reporting purposes.</p> <p>MM 4.14-5: Prior to the issuance of any building permits on the property, the project operator shall submit a letter detailing the hiring efforts prior to commencement of construction, which encourages all contractors of the project site to hire at least 50 percent of their workers from local Kern County communities. The project operator shall provide the contractors a list of training programs that provide skilled workers and shall require the contractor to advertise locally for available jobs, notifying the training programs of job availability, all in conjunction with normal hiring practices of the contractor.</p>	
Impact 4.14: Cumulative Impacts	Potentially significant	Implementation of Mitigation Measures MM 4.14-1 through MM 4.14-5 are required.	Less than significant
4.15 Traffic and Transportation			
Impact 4.15-1: The project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	Potentially significant	<p>MM 4.15-1: Prior to the issuance of construction or building permits, the project proponent/operator shall:</p> <ol style="list-style-type: none"> a. Prepare and submit a Construction Traffic Control Plan to Kern County Public Works Department- Development Review and the California Department of Transportation offices for District 9, as appropriate, for approval. The Construction Traffic Control Plan must be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and must include, but not be limited to, the following issues: <ol style="list-style-type: none"> 1. Timing of deliveries of heavy equipment and building materials during off-peak hours to the extent feasible; 2. Review of transport routes, such as the intersection at SR-14 and Purdy Avenue, to determine how turns on existing roads would be accomplished and identifying intersections at which use of a flag person would be required to assist large trucks in making unobstructed turns; 	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ol style="list-style-type: none"> 3. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic; 4. Establish procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities; 5. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections; 6. Maintaining access to adjacent property; 7. Encourage carpooling among workers to reduce worker commute trips entering and exiting the study area; and 8. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak hour, distributing construction traffic flow across alternative routes to access the project sites, and avoiding residential neighborhoods to the maximum extent feasible. <ol style="list-style-type: none"> b. Obtain all necessary encroachment permits for work within the road right-of-way or use of oversized/overweight vehicles that will utilize County-maintained roads, which may require California Highway Patrol or a pilot car escort. Copies of the approved traffic plan and issued permits shall be submitted to the Kern County Planning and Natural Resources Department and the Kern County Public Works Department-Development Review. c. Enter into a secured agreement with Kern County to ensure that any County roads that are demonstrably damaged by project-related activities are promptly repaired and, if necessary, paved, slurry-sealed, or reconstructed as per requirements of the State and/or Kern County. d. Submit documentation that identifies the roads to be used during construction. The project proponent/operator shall be responsible for repairing any damage to non-county maintained roads that may result from construction activities. The project proponent/operator shall submit a preconstruction video log and inspection report regarding roadway conditions for roads used during 	

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.15-2: The project would conflict with an applicable Congestion Management Program, including, but not limited to level of service standards and</p>	<p>Less than significant</p>	<p>construction to the Kern County Public Work Department-Development Review and the Kern County Planning and Natural Resources Department.</p> <p>e. Within 30 days of completion of construction, the project proponent/operator shall submit a post- construction video log and inspection report to the County. This information shall be submitted in DVD format. The County, in consultation with the project proponent/operator’s engineer, shall determine the extent of remediation required, if any.</p> <p>MM 4.15-2: Prior to the issuance of construction or building permits, the project proponent/operator shall implement measures to reduce construction worker vehicle trips during the AM and PM peak hours. These measures may include, but are not limited to the following:</p> <p>a. The Construction Traffic Control Plan (see MM 4.15-1, above) shall outline the methods used to control the number of worker vehicles arriving and departing from the project site during peak AM and PM hours, and document all reasonable efforts made to avoid impacts to area intersections.</p> <p>b. The project proponent/operator shall limit construction worker vehicle trips to and from the site to the extent possible during the AM and PM peak periods (i.e., 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.) by implementing such measures as:</p> <ol style="list-style-type: none"> 1. Instituting incentives and providing options for construction workers to carpool and/or vanpool to and from the project site. 2. Scheduling construction worker shifts so that a majority of the workers arrive and depart the project site outside the AM and PM peak periods. 3. Staggering construction worker shifts so that construction worker vehicle trips are distributed over a broader period (i.e., construction workers arrive in staggered shifts starting from 6:00 a.m. and depart in staggered shifts starting from 2:00 p.m.). 	<p>Less than significant</p>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
travel demand measures, or other standards developed by the County Congestion Management Agency for Designated Roads or Highways.			
Impact 4.15-3: The project would substantially increase hazards due to a geometric design feature (such as sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Potentially significant	Implementation of Mitigation Measure MM 4.15-1 is required.	Less than significant
Impact 4.15-4: The project would result in inadequate emergency access.	Potentially significant	Implementation of Mitigation Measure MM 4.15-1 is required.	Less than significant
Impact 4.15: Cumulative Impacts	Potentially significant	Implementation of Mitigation Measures MM 4.15-1 and MM 4.15-2 is are required.	Less than significant
4.16 Tribal Cultural Resources			
Impact 4.16-1a: The project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is	Potentially Significant	Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-46 would be required (See section 4.5, <i>Cultural Resources</i> , for full mitigation measure text).	Unknown at this time Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).</p>	<p>Potentially Significant</p>	<p>Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-46 would be required (See section 4.5, <i>Cultural Resources</i>, for full mitigation measure text).</p>	<p>Unknown at this time <u>Less than significant</u></p>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>		<p>Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-4 would be required (See section 4.5, <i>Cultural Resources</i>, for full mitigation measure text).</p>	<p>Less than significant</p>
<p>4.17 Utilities and Service Systems</p>			
<p>Impact 4.17-1: The project would require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which</p>	<p>Potentially significant</p>	<p>Implementation of Mitigation Measure MM 4.10-1, as described above, is required.</p>	<p>Less than significant</p>

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
could cause significant environmental effects.			
Impact 4.17-2: The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.17-3: Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.17-4: The project would generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	Potentially significant	<p>MM 4.17-1: Prior to issuance of a grading or building permit, an onsite Waste Disposal and Recycling Coordinator shall be designated by the project proponent/operator to facilitate waste disposal and recycling as part of the Maintenance, Trash Abatement, and Pest Management Program. The provisions listed below shall apply to the project:</p> <ul style="list-style-type: none"> a. The project proponent/operator shall provide a storage area for waste and recyclable materials within the fenced project area that is clearly identified for waste and recycling. This area shall be shown on a submitted site plan and maintained on the site during construction, operations and decommissioning. b. During construction, operation, and decommissioning, debris and waste generated shall be recycled to the extent feasible. 	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> c. The Waste Disposal and Recycling Coordinator shall facilitate recycling of all construction and decommissioning waste through coordination with contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes. d. The Waste Disposal and Recycling Coordinator shall coordinate with Kern County Public Works Department – Solid Waste Division the acceptance for disposal or recycling of construction and decommissioning waste prior to being transported to any public disposal facility. e. The Waste Disposal and Recycling Coordinator shall ensure that materials transported to public disposal facilities for recycling shall be separated by material type so as not to be co-mingled or contaminated with waste material. f. The Waste Disposal and Recycling Coordinator shall also be responsible for ensuring wastes requiring special disposal are handled according to State and County regulations that are in effect at the time of disposal. g. Contact information of the coordinator shall be provided to the Kern County Planning and Natural Resources Department prior to issuance of building permits. 	
<p>Impact 4.17-5: The project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.</p>	Potentially significant	Implementation of Mitigation Measure MM 4.17-1 is required.	Less than significant
<p>Impact 4.17: Cumulative Impacts</p>	Potentially significant	Implementation of Mitigation Measures MM 4.10-1 , and MM 4.17-1 is required.	Less than significant
4.18 Wildfire			
<p>Impact 4.18-1: The project would substantially impair an adopted emergency response plan or</p>	Less than significant	No mitigation measures are required.	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
emergency evacuation plan.			
Impact 4.18-2: The project would, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	Potentially significant	Implementation of Mitigation Measure MM 4.14-1 , as described above, is required.	Less than significant
Impact 4.18-3: The project would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	Potentially significant	Implementation of Mitigation Measure MM 4.14-1 , as described above, is required.	Less than significant
Impact 4.18-4: The project would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of	Potentially significant	Implementation of Mitigation Measures MM 4.10-1 and MM 4.10-2 , as described above, is required.	Less than significant

TABLE 1-7: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
runoff, post-fire instability, or drainage changes.			
Impact 4.18: Cumulative Impacts	Potentially significant	Implementation of Mitigation Measures MM 4.10-1 , MM 4.10-2 , and MM 4.14-1 , as described above, is required.	Significant and Unavoidable

The revisions to the column addressing “Level of Significance After Mitigation,” above, reflect typographical errors in Table 1-7 of the Draft EIR. These errors have been corrected here for consistency with the analysis included in Chapter 4 of the Draft EIR. None of the significance conclusions in the Draft EIR have changed.

Chapter 3, Project Description, Figure 3-12 Circulation Element Amendment, Page 3-49

Figure 3-12 is replaced with the following figure:

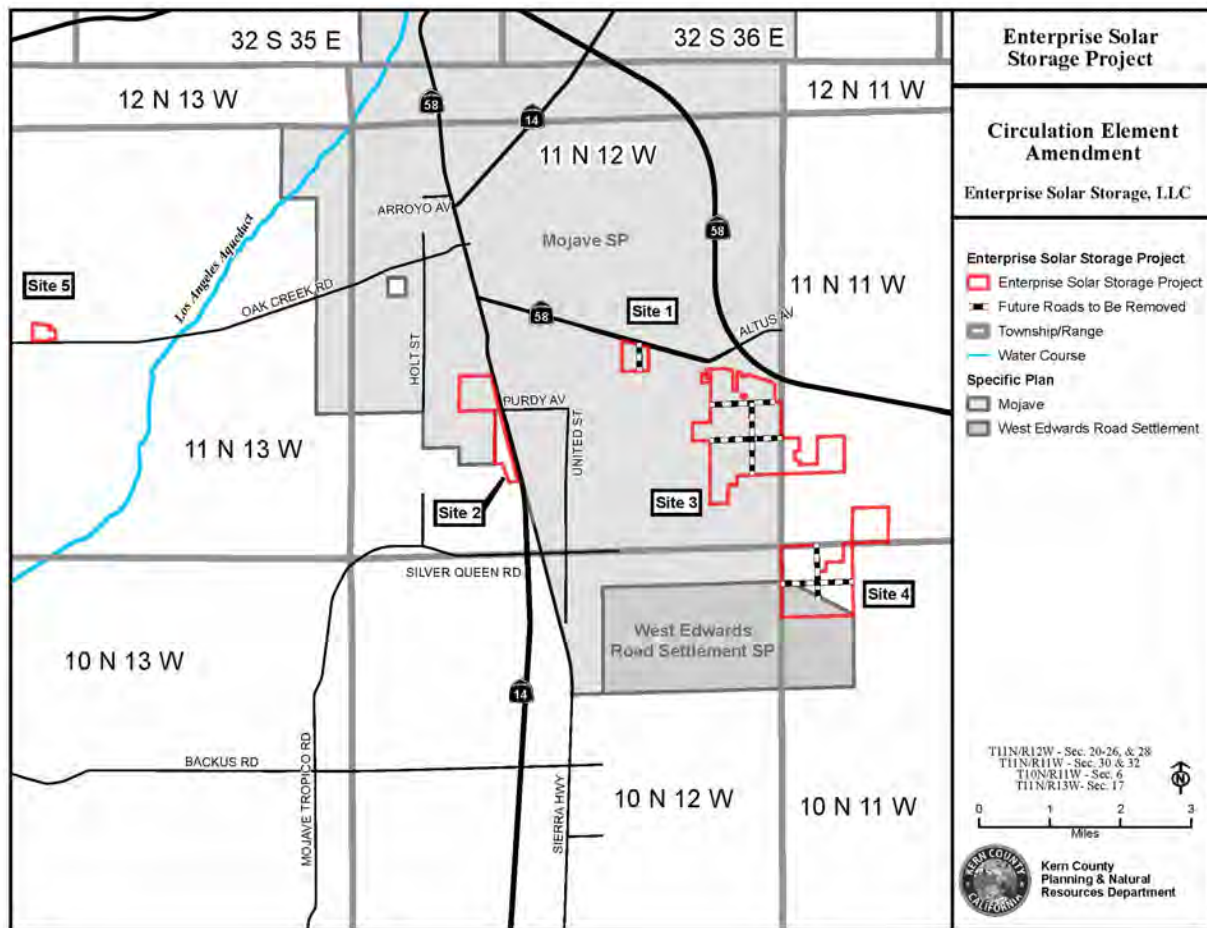


Figure 3-12 Circulation Element Amendment

Chapter 3, Project Description, Section 3.9.1, Operational Water Usage, Page 3-61

During operations, the water used will be provided from the Mojave Public Utility District or existing or new on-site water wells. Water would be required for panel washing, equipment washing, non-sanitary uses, and other miscellaneous water uses, such as landscaping. During project operations, solar panel washing is expected to occur one to four times per year based on site conditions, such as usual weather occurrences, wild/forest fires, local air pollutants, and other similar conditions. Panel washing would

require 15 days to complete per wash cycle. Water consumption is expected to be around 0.28 gallon per square yard of panel, based on other similar operations. Given a 600-MW facility, with four cycles per year, the annual water usage is expected to be up to approximately 25 acre-feet of water. This amount includes the water necessary for the operations, fire suppression, and site maintenance. On-site water resources would also include an aboveground 10,000-gallon fire tank, which would be placed at each site entrance ~~the water tank may be provided for fire department use and shall be located a minimum of 300 feet upwind of the nearest BESS enclosure.~~ The footprint of the tanks are approximately 20 feet by 20 feet. To comply with Kern County Fire Department BESS requirements, the project would also include an aboveground 30,000-gallon fire tank for fire department use and would be located a minimum of 300 feet upwind of the nearest BESS enclosure.

Section 4.3, Air Quality, Page 4.3-18

Coronavirus Disease 2019

Coronavirus Disease 2019 (COVID-19) is a new disease, caused by a novel (or new) human coronavirus that has not previously been seen in humans. The first known case of COVID-19 was confirmed in the United States on January 20, 2020 (Holshue, et al, 2020). There are many types of human coronaviruses, including some that commonly cause mild upper-respiratory tract illnesses. COVID-19 is a respiratory illness that can spread from person to person. According to the Center for Disease Control (CDC), older adults and people who have severe underlying medical conditions like heart or lung disease or diabetes seem to be at higher risk for developing more serious complications from COVID-19 illness. Symptoms may appear 2 to 14 days after the exposure to the virus and may include, but are not limited to: fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting, and diarrhea (CDC, 2021a). According to the CDC, COVID-19 is believed to spread between people who are in close contact with one another (within about 6 feet) through respiratory droplets produced when an infected person coughs, sneezes, or talks (CDC, 2021b). COVID-19 research and causality is still in the beginning stages. A nationwide study by Harvard University found a linkage between long term exposure to PM2.5 (averaged from 2000 to 2016) as air pollution and statistically significant increased risk of COVID-19 death in the United States (Harvard, 2020). Though COVID-19 remains a concern world-wide, the national public health emergency declaration regarding COVID-19 ended on May 11, 2023.

Section 4.3, Air Quality, Page 4.3-52

The project's construction emissions would not exceed the EKAPCD's thresholds except for particulate matter. This exceedance would occur on some days during the approximately 28 months of construction and would not be an ongoing operational issue. The short duration of exceedance is unlikely to result in chronic adverse health impacts. Further, models designed to determine health impacts from air pollution generally look at long-term exposures, making them not particularly informative of health impacts from short-term exposures such as would be experienced by people residing in the vicinity of a construction site. The project proposes the construction and operation of a large-scale utility solar project that would require dust-generating construction activities such as pile-driving, mowing, and grading, over a large area. During construction, the project would implement Mitigation Measures MM 4.3-1 through MM 4.3-7 to reduce the project's regional and localized health effects associated with criteria air pollutants, particularly particulate matter; however, the exact reduction from implementation of these mitigation measures cannot be

quantified given existing scientific constraints. As such, the impacts are conservatively considered to be significant and unavoidable.

Since COVID-19 is understood to spread as result of close, person-to-person contact, especially within poorly ventilated indoor spaces, the likelihood of emissions from the proposed project directly increasing the spread of COVID-19 is remote. However, a nationwide study by Harvard University found a linkage between long term exposure to PM_{2.5} as air pollution and statistically significant increased risk of COVID-19 death in the United States (Harvard, 2020). Though construction dust suppression measures would be implemented as a requirement of Mitigation Measure MM 4.3-2, exposure to dust during construction could still occur which could increase the severity of the disease project employees and nearby residents to COVID-19 should they contract it. However, the vaccines for COVID-19 drastically reduce the likelihood of hospitalization, much less death, as a result of contracting COVID-19. In spite of a readily available COVID-19 vaccine supply in the United States, the COVID-19 pandemic is on-going as a result of low vaccination rates and mask compliance by unvaccinated individuals. People of color may also have a higher risk of getting sick or dying from COVID-19 (California Department of Public Health 2020) and may live in areas already burdened by air pollution (NRDC 2014). On-site workers and residents near project activities potentially could be exposed to increased levels of PM_{2.5} from project activities due to the emissions of PM_{2.5} from the project.

Therefore, in addition to implementation of Mitigation Measure MM 4.3-2, the project would implement Mitigation Measure MM 4.3-8, which requires implementation of a COVID-19 Health and Safety Plan in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates. Implementation of Mitigation Measures MM 4.3-2 and MM 4.3-8 would be required to reduce the project's regional and localized health effects associated with criteria air pollutants and COVID-19; however, the exact reduction from implementation of these mitigation measures cannot be quantified given existing scientific constraints. Consequently, the United States COVID-19 national health emergency ended on May 11, 2023, rendering COVID-19 as less of a threat to public health as opposed to the previous three years. With implementation of MM 4.3-2 and MM 4.3-8, impacts would be less than significant.

Mitigation Measures

Implementation of Mitigation Measures **MM 4.3-1** through **MM 4.3-78** would be required.

MM 4.3-6: Minimize Exposure to Potential Valley Fever-containing Dust. To minimize personnel and public exposure to potential Valley Fever-containing dust on and offsite, the following control measures shall be implemented during project construction:

- a. Equipment, vehicles, and other items shall be thoroughly cleaned of dust before they are moved offsite to other work locations.
- b. Wherever possible, grading and trenching work shall be phased so that earth-moving equipment is working well ahead or downwind of workers on the ground.
- c. The area immediately behind grading or trenching equipment shall be sprayed with water before ground workers move into the area.
- d. In the event that a water truck runs out of water before dust is sufficiently dampened, ground workers being exposed to dust shall leave the area until a truck can resume water spraying.

- e. To the greatest extent feasible, heavy-duty earth-moving vehicles shall be closed-cab and equipped with HEP-filtered air system.
- f. Workers shall receive training in procedures to minimize activities that may result in the release of airborne *Coccidioides immitis* (CI) spores, to recognize the symptoms of Valley Fever, and shall be instructed to promptly report suspected symptoms of work-related Valley Fever to a supervisor. Evidence of training shall be provided to the Kern County Planning and Natural Resources Department.
- g. A Valley Fever informational handout shall be provided to all onsite construction personnel. The handout shall, at a minimum, provide information regarding the symptoms, health effects, preventative measures, and treatment. Additional information and handouts can be obtained by contacting the Kern County Public Health Services Department.
- h. Onsite personnel shall be trained on the proper use of personal protective equipment, including respiratory equipment. National Institute for Occupational Safety and Health-approved respirators shall be provided to onsite personal upon request. When exposure to dust is unavoidable, provide appropriate National Institute for Occupational Safety & Health-approved respiratory protection to affected workers, if necessary. If respiratory protection is deemed necessary, employers must develop and implement a respiratory protection program in accordance with California Division of Occupational Safety and Health's Respiratory Protection standard (8 CCR 5144).

MM 4.3-7: Prior to the issuance of grading permits, a one-time fee shall be paid to the Kern County Public Health Services Department in the amount of \$3,200 for Valley Fever public awareness programs.

MM 4.3-8: At the time of project implementation, a COVID-19 Health and Safety Plan should be prepared in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates. A copy of the COVID-19 Health and Safety Plan shall be submitted to the Kern County Planning and Natural Resources Department for review and approval.

Level of Significance after Mitigation

Criteria Air Pollutants

With implementation of Mitigation Measures MM 4.3-1 through MM 4.3-5, temporary construction and decommissioning impacts would be significant, and unavoidable. Operational impacts would be less than significant.

Valley Fever

With implementation of Mitigation Measures MM 4.3-6 and MM 4.3-7, impacts would be less than significant.

COVID-19 and Other Infectious Diseases

With implementation of Mitigation Measures MM 4.3-1 through MM 4.3-8, the uncertainty of the project's regional and localized health impacts associated with criteria air pollutants, such as PM_{2.5} along with indirect linkages of criteria pollutants and COVID-19 on vulnerable populations remains, but would be less than significant as a result of concerns over COVID-19 being lessened with the end of the public health emergency related to COVID-19 on May 11, 2023.

Chapter 4.4, Biological Resources, Page 4.4-16

While the project site supports desert habitats and soils that could potentially support sensitive plants, none of the 145 sensitive plant species listed in **Table 4.4-2, *Special-Status Plants with the Potential to Occur Within the Project Site***, were observed during the numerous field surveys conducted in 2021, 2022, and 2023. For these reasons, if these species were to occur onsite, they would most likely occur in low numbers.

Chapter 4.4, Biological Resources, Page 4.4-43 through 4.4-44

Crotch's bumble bee: Due to the commonality of habitat types and features (e.g., small mammal burrows) that the species can utilize for nesting and their diversity of foraging and nectar plants, CBB habitat is considered widespread and in abundance in the project region. Though CBB have not been identified on the site to date, the project site could potentially support CBB nesting and foraging habitat; therefore, vegetation or ground disturbing activities during project construction have the potential to result in direct and indirect impacts on this species should they occur. If CBB is present, impacts on the species would be considered potentially significant. Pursuant to Mitigation Measure MM 4.4-17, prior to initial ground-disturbing activities, the project proponent/operator will conduct focused CBB nesting surveys within all suitable habitat. Surveys will follow the survey methodologies set out in the CDFW Survey Considerations for CESA Candidate Bumble Bee (CDFW, 2023d). A minimum 50-foot disturbance buffer shall be established around all CBB nests found during surveys. If avoidance of CBB nests is not feasible, the project proponent/operator shall consult with the CDFW regarding potential for project activities to result in take of the Crotch's bumble bee and shall comply with all avoidance, minimization, and compensatory mitigation requirements set forth in any ITP issued for the project by CDFW authorizing take of the species. As such, even if the species is determined to be nesting on site, impacts will be less than significant following implementation of MM 4.4-17.

The CBB has a statewide distribution in a variety of habitats and agricultural fields including but not limited to grasslands and chaparral shrublands, small mammal burrows, bunch grasses, thatch, brush piles, old bird nests, or dead trees. As such, there is an abundance of suitable habitat surrounding the project site and in the region. The project will also be constructed using techniques that allow for retention and reestablishment of vegetation following project construction. Site preparation techniques will minimize impacts on natural vegetation where possible, using mow-and-roll vegetation clearance strategy, and minimizing conventional grading throughout the site to the maximum extent possible. Impacts on the species' habitat would be less than significant because of the abundance of suitable habitat surrounding the project site and because vegetation supporting the species would continue to be available on the site during project operations. This already less-than-significant impact on CBB habitat would be further minimized through implementation of MM 4.1-43, which requires revegetation of temporarily disturbed areas and calls for retention of natural vegetation on the project site where possible.

Chapter 4.4, Biological Resources, Pages 4.4-55 through 4.4-62

- MM 4.4-5:** Prior to the issuance of grading or building permits, the project proponent will conduct pre-construction botanical surveys, by a qualified botanist following the CDFW Botanical Protocol (CDFW 2018) the survey season immediately prior to construction, to verify the location of alkali mariposa lily in the vicinity of the location where the species was potentially identified during botanical surveys and in potentially affected areas within 200 feet of that location.
- d. If no alkali mariposa lilies are observed during the survey, project activities may begin, and no further mitigation shall be required.
 - e. If alkali mariposa lilies are observed during the survey, the areas shall be mapped and photographed, and appropriate measures shall be implemented to avoid impacts on the species to the extent feasible. The areas shall be clearly marked in the field with temporary high visibility ESA fencing or other appropriate markers. ESA fencing/markers shall remain in place throughout the duration of project construction and will be regularly inspected and maintained.
 - f. All alkali mariposa lilies that cannot feasibly be avoided in final project design shall have bulbs collected prior to construction. Additionally, an Alkali Lily Transplantation Plan will be submitted to and approved by the Kern County Planning and Natural Resources Department, prior to ground disturbance and bulb collection. The plan will include the following:
 - vii. Identify an area of occupied habitat either on-site or off-site to be preserved and where transplantation of bulbs will occur and methods for preservation, restoration, enhancement, and/or translocation.
 - viii. Indicate a replacement ratio and success standard of 1:1 for impacted individuals.
 - ix. Establish a monitoring program to ensure mitigation success.
 - x. Create adaptive management and remedial measures in the event that performance standards are not achieved.
 - xi. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.
 - xii. Temporary ground disturbance associated with the transmission lines shall be recontoured to natural grade (if the grade was modified during the temporary disturbance activity) and revegetated with an application of a native seed mix prior to or during seasonal rains to promote passive restoration of the area to pre-project conditions. However, if invasive, non-native plant species were present, these species would not be restored. An area subjected to temporary ground disturbance means any area that is disturbed but will not be subjected to further disturbance as part of the project. This does not include areas already designated as urban/developed. Prior to seeding temporary ground disturbance areas, the qualified biologist will review the seeding palette to ensure that no seeding of invasive plant species, as identified in the most recent version of the California Invasive Plant Inventory for the region, will occur.

Special status plant species should be avoided whenever possible by delineation and observation of a 50-foot no-disturbance buffer from the outer edge of the special status plant population(s) or specific habitat type(s) required by special status plant species. If buffers cannot be maintained, then the project proponent shall consult with CDFW.

MM 4.4-6: To protect special-status wildlife species from disturbance during construction, the actions described below shall occur. Within a maximum of 14 days of the start of ground-disturbing activities, such as geotechnical drilling, vegetation clearing, and/or grading, the qualified biologist(s) shall conduct preconstruction surveys for special-status species within the Project site, as well as within a minimum of 500 feet (152 meters) from the Project site to account for any inadvertent impacts on adjacent areas. Methodology for preconstruction surveys shall be conducted as appropriate for desert tortoise, burrowing owl, desert kit fox, Swainson's hawk, loggerhead shrike, Le Conte's thrasher, Northern California legless lizard, and migratory birds, and shall follow USFWS and/or the CDFW survey protocol guidelines, where appropriate. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within 14 days of the portion of the Project site that would be disturbed. If evidence of occupation by a special-status species is observed, a suitable buffer shall be established by a qualified biologist that results in sufficient avoidance. Following the completion of the preconstruction desert tortoise surveys, the qualified biologist will prepare and submit to the USFWS, CDFW, and the Kern County Planning and Natural Resources Department a letter/memo summarizing the results of the surveys.

If Northern California legless lizard are documented during surveys, avoidance whenever possible is encouraged via delineation and observance of a 50-foot no-disturbance buffer; however, a qualified biologist with the appropriate permit may relocate Northern California legless lizard out of the project area into a nearby area with suitable habitat.

MM 4.4-7: The project consists of five geographically distinct Sites. Each project Ssite shall be fenced to keep terrestrial wildlife species from entering the project site during construction. Following construction, for Sites around which desert tortoise exclusion fencing is not installed but will provide openings post construction to enable wildlife to move freely through the project site during operation (e.g., create 4 to 7 inch portals or openings in the fence raising the fence 7 the fencing shall be raised 4 to 6 inches above the ground and knuckling the bottom of the fence shall be knuckled [(i.e., wrapping the fencing material back to form a smooth edge] to protect wildlife passing underneath). A desert tortoise exclusion fence is not required unless desert tortoises are found on Ssite during the preconstruction surveys. This fencing If desert tortoise exclusion fencing is required, it shall be constructed of silt fence material, metal flashing, plastic sheeting, or other materials that will prohibit wildlife from climbing the fence or burrowing below the fence. The fencing shall be buried approximately 12 inches below the surface and extend a minimum of 30 inches above grade. Fencing shall be installed prior to issuance of grading or building permits and shall be maintained during all phases of construction and decommissioning. The fencing shall be inspected by a qualified biologist at a regular interval and immediately after all major rainfall events through the duration of construction and decommissioning activities. Any needed repairs to the fence shall be performed on the day of their discovery. Outside temporarily fenced exclusion areas, the project operator shall limit the areas of disturbance. Parking areas, new roads, staging, storage, excavation,

and disposal site locations shall be confined to the smallest areas possible. These areas shall be flagged and disturbance activities, vehicles, and equipment shall be confined to these flagged areas.

MM 4.4-8: To mitigate for potential impacts on nesting birds, special-status birds, and birds protected under the MBTA and California Fish and Game Code during construction and decommissioning activities, the following measures shall be implemented:

1. During the avian nesting season (February 1–~~August 31~~ September 15), a qualified biologist shall conduct a preconstruction avian nesting survey no more than 714 days prior to initial vegetation clearing. Surveys need not be conducted for the entire Project site at one time; they may be phased so that surveys occur within 714 days prior to clearing or disturbance in specific areas of the site. The surveying biologist must be qualified to determine the species, status, and nesting stage without causing intrusive disturbance. At no time shall the qualified biologist be allowed to handle the nest or its eggs. The survey shall cover all reasonably potential nesting locations on and within 500 feet (152 meters) of the Project site, including ground nesting species, such as horned lark, nests in shrubs that could support nests, and suitable raptor nest sites such as nearby trees, windrows, and power poles. Access shall be granted on private offsite properties prior to conducting surveys on private land. If access is not obtainable, the biologist shall survey these areas from the nearest vantage point with use of spotting scopes or binoculars.
2. If construction is scheduled to occur during the non-nesting season (September 16– February 1), no preconstruction surveys or additional measures are required for non-listed avian species.

If active nests are found, a 250~~100~~-foot (~~30-meter~~) no-disturbance buffer shall be created around non-listed avian species' nests unless adjusted by the qualified biologist based on the needs and sensitivities of individual species, and a 500~~300~~-foot (~~91-meter~~) no-disturbance buffer shall be created around non-listed raptor species' nests (or a suitable distance otherwise determined in consultation with a qualified biologist). Any nest of a federally or state listed bird species shall require consultation with the appropriate agency (USFWS or the CDFW) to determine the appropriate buffer distance surrounding the nest to provide adequate nest protection. These buffers shall remain in effect until a qualified biologist has determined that the birds have fledged or the Project component(s) have been redesigned to avoid the area. All no-disturbance buffers shall be delineated in the field with visible flagging or fencing material.

MM 4.4-10: To determine the presence and activity of any known or new nests of Swainson's hawk, a qualified biologist shall conduct nest surveys for Swainson's hawk prior to commencement of construction activities. The surveying biologist must be approved by CDFW and Kern County and be qualified to determine the status and stage of nesting by Swainson's hawk. An initial nesting season survey must be performed no more than 1 year prior to the commencement of construction activities. The surveys shall be conducted during the nesting season for Swainson's hawk (March 1 through September 15) within both the construction footprint and within all accessible areas within a 5-mile buffer around the proposed construction areas. Areas within the 5-mile buffer that are not accessible shall be surveyed by binocular and spotting scope. The surveys can be phased with project build-out. The nesting season surveys shall follow the protocols set out in the CEC and CDFW Guidance (2010).

If construction activities are scheduled to be initiated during the nesting season, a qualified

biologist shall conduct a pre-construction survey of all accessible areas within 0.5 mile of the construction site to determine the presence and activity of known or new Swainson's hawk nests. Inaccessible areas shall be surveyed by binocular and spotting scope. The preconstruction survey shall occur within 30 days prior to the start of construction. Depending on project timing, the pre-construction survey may not be necessary if the initial nesting season surveys overlap with the pre-construction survey timing or if construction activities will start outside of the Swainson's hawk nesting season (September 16 to February 28). The pre-construction nest survey shall follow the protocols set out in the CEC and CDFW Guidance (2010).

To the extent feasible, the project applicant shall design the project site to allow sufficient foraging and fledging area to maintain active Swainson's hawk nests located adjacent to the project site. The solar panels and infrastructure would be set back from Swainson's hawk nests at a distance determined after consultation with Kern County and CDFW. Avoided habitat would not count toward impacts used in determining compensatory mitigation requirements described below and may be used to satisfy mitigation requirements if protected by a conservation easement.

During the nesting season (March 1 through September 15), ensure no new ground disturbances, habitat conversions, or other project-related activities that may cause nest abandonment or forced fledging shall occur within 0.5 mile of an active nest. ~~Buffer zones may be adjusted in consultation with CDFW and with the County.~~

If active Swainson's hawk nests are found within a 0.5-mile radius of the project site during the preconstruction surveys, the project proponent/operator shall mitigate the loss of any moderate quality Swainson's hawk foraging habitat for any portion of the project site within 5-miles of an active nest at a ~~0.5~~1:1 ratio. Mitigation lands may be nested with other compensatory lands provided it meets the necessary biological requirements and as determined by appropriate wildlife agency. If preconstruction surveys detect a nesting Swainson's hawk, and a 0.5-mile no-disturbance buffer is not feasible, it is strongly recommended that the Project proponent consult with CDFW prior to any ground disturbing activities to determine if an ITP is necessary.

MM 4.4-11: Preconstruction surveys for small mammals including Mohave ground squirrel and southern grasshopper mouse shall be conducted within all suitable habitat 14 days prior to initial ground-disturbing activities. If a Mohave ground squirrel is found on the construction site, work shall be halted and redirected to areas not supporting this species, and consultation with Kern County and CDFW shall occur. A written report shall be sent to CDFW within 5 calendar days of the sighting. The report shall include the date, time of the finding or incident (if known), and location of the animal. If a dead Mohave ground squirrel is encountered, the remains shall be collected, frozen as soon as possible, and CDFW shall be contacted to determine where the remains would be sent.

If Mohave ground squirrels are detected during any Project surveys, the applicant shall prepare a Mohave Ground Squirrel Avoidance and Monitoring Plan. If it is determined from surveys that Mohave ground squirrels are not present, no further action is required.

The Mohave Ground Squirrel Avoidance and Monitoring Plan shall include, at a minimum:

- a. Specifications for designation of qualified Project biologists for conducting surveys and monitoring.

- b. Methods for excluding Mohave ground squirrels from the work area, such as fencing.
- c. Measures and procedures related to monitoring of construction for presence of Mohave ground squirrels.
- d. A requirement to cease work if a Mohave ground squirrel is encountered in a work area.
- e. Requirements for the worker environmental awareness training and education program training as it pertains to Mohave ground squirrels reporting requirements.
- f. All documented active MGS burrows shall be avoided by a minimum of 50 feet to avoid take and potentially significant impacts; if avoidance is not feasible, the project proponent shall consult with CDFW to determine whether an ITP is necessary.

MM 4.4-12: The Project proponent/operator shall implement the following measures to ensure potential impacts on American badger and desert kit foxes resulting from Project construction, operation and maintenance, and decommissioning activities would be avoided and minimized to a less-than-significant level:

- a. A qualified biologist shall be onsite during all initial grading and construction, preconstruction ground-disturbing activities, and decommissioning activities.
- b. A qualified biologist (that is, a biologist with the ability to identify the species and possessing previous mammal survey and avoidance and minimization protection experience) shall conduct preconstruction surveys of all areas that would be permanently or temporary impacted, plus a 500-foot (152-meter) buffer, to locate unoccupied and occupied dens.
- c. If occupied Desert Kit Fox dens are identified on-site, the project proponent shall establish appropriate buffers limiting all construction activities near an active den. Buffers include (50 Feet) for a potential or atypical den, (100) feet for a known den and (500) feet for a natal or pupping den, unless otherwise specified by the California Department of Fish and Wildlife (CDFW). If required buffers are not possible to protect the species, then the project proponent shall confer with CDFW on the need for take authorization through the acquisition of an incidental take permit, pursuant to Fish and Game Code section 2081 subdivision.

~~Unoccupied potential dens for desert kit fox or American badger shall have a minimum 30-foot (9 meter) avoidance buffer established.~~

~~2. An occupied den outside of the pup-rearing season shall be flagged and ground-disturbing activities avoided within 100 feet (30 meters) of the occupied den. An occupied den during the pup-rearing season, also known as a maternity den, should not be disturbed and a minimum 500-foot (152-meter) avoidance buffer established.~~

1. Desert kit fox pup-rearing season: February 1–August 1.
2. American badger pup-rearing season: March 15–July 31.
3. If outside the pup-rearing season an occupied den cannot be avoided, a passive relocation program can occur. The program shall consist of determining status of the den (confirming it is a nonmaternity den through remote camera monitoring), excluding American badger or desert kit fox from the occupied nonmaternity den by installation of one-way doors at burrow entrances, monitoring of the den for 7 days to

confirm usage has been discontinued, and excavation and collapse of the den. Passive relocation occurs by slowly excavating the burrow (either by hand or by mechanized equipment) under the direct supervision of a qualified biologist and removing no more than 4 inches (10 centimeters) of soil at a time. Passive relocation cannot occur during the pup-rearing season unless remote camera monitoring has documented the den as a non-maternity den. A written report documenting the passive relocation shall be provided to the Kern County Planning and Natural Resources Department within 30 days of relocation.

4. Dens or burrows that are determined to be inactive as determined by a qualified biologist within the Project site, shall be collapsed by a qualified biologist to prevent occupation of the den between the time of the preconstruction survey and construction activities.

Chapter 4.4, Biological Resources, Page 4.4-64

MM 4.4-20: During the appropriate survey season prior to the start of project ground disturbance activities, a focused desert tortoise survey consistent with the USFWS 2019 desert tortoise survey protocol shall be conducted by a qualified biologist in the project areas identified on Figure 4.4-1. Should surveys indicate the presence or potential presence of desert tortoise, CDFW shall be consulted to determine the necessity for the Project to obtain an ITP, pursuant to Fish and Game Code section 2081 subdivision (b). If no evidence of these special-status species is detected, no further action is required.

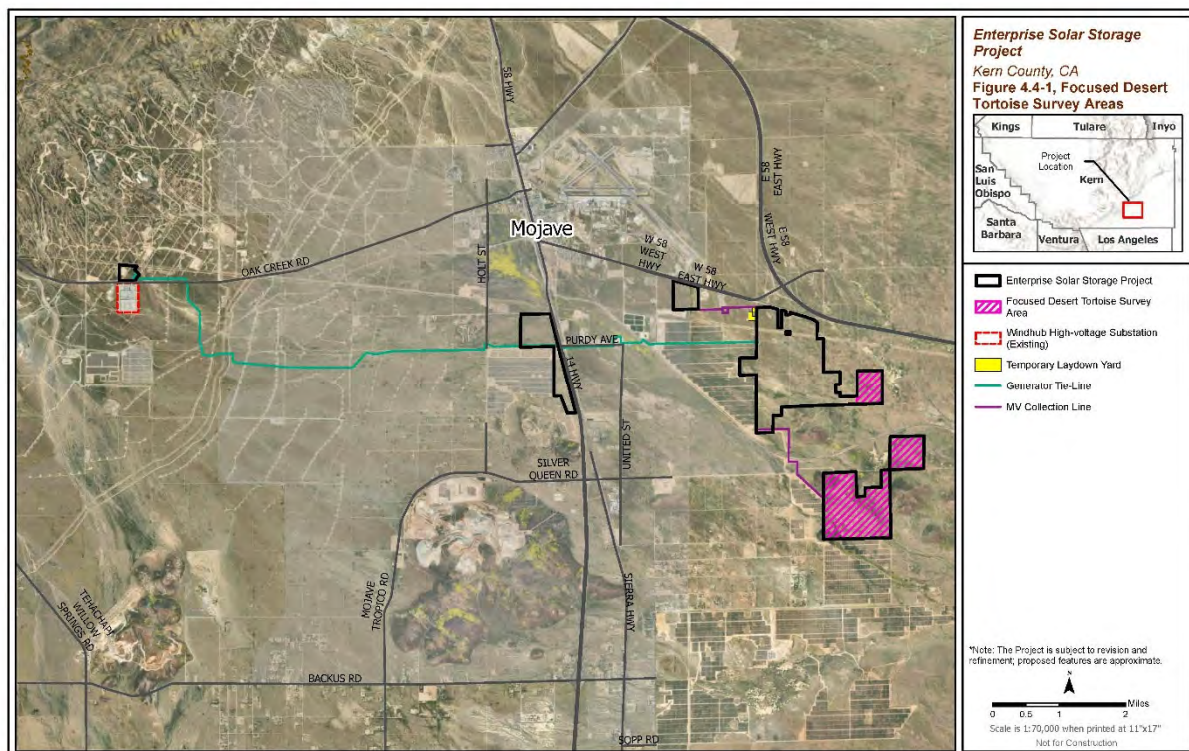


Figure 4.4-1 Focused Desert Tortoise Survey Areas

Chapter 4.4, Biological Resources, Page 4.4-73

Mitigation Measures

Implementation of Mitigation Measures MM 4.1-1, MM 4.1-3, MM 4.1-5, MM 4.1-6, 4.1-7, MM 4.3-2, 4.3-3, MM 4.9-2, MM 4.10-1, 4.10-2, MM 4.13-1, and MM 4.4-1 through MM 4.4-2019, and MM 4.10-1 and MM 4.10-2 would be required.

Section 4.10, Hydrology and Water Quality, Page 4.10-1

Antelope Hydrologic Unit

The Antelope Hydrologic Unit is part of the Lahontan Regional Water Quality Control Board (RWQCB). The Antelope Hydrologic Unit includes portions of Los Angeles, Kern, and San Bernardino Counties and corresponds to the Antelope Valley basin, which is a closed topographic basin with an area of about 2,400 square miles. Under the California Department of Water Resources mapping system used in the Lahontan Basin Plan, the Antelope Hydrologic Unit includes eight Hydrologic Areas: Chafee, Gloster, Willow Springs, Neenach, Lancaster, North Muroc, Buttes, and Rock Creek (Lahontan RWQCB, 2021). The project is located in the ~~Willow Springs~~ Chafee Hydrologic Area or sub-watershed. In the Antelope Valley, water flows east towards Rosamond Lake. Beneficial uses of the Chafee Hydrologic Area, as described in the Lahontan Region Water Quality Control Plan (Lahontan RWQCB, 2016), include municipal, agricultural, groundwater, recreational, commercial and sports fishing, warm freshwater habitat, cold freshwater habitat, and wildlife habitat uses.

Section 4.18, Wildfire, Page 4.18-16 and 4.18-17

Impact 4.18-4: The project would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire instability, or drainage changes.

Development of the proposed project would alter existing onsite drainage patterns and flowpaths compared to existing conditions and include the introduction of new impervious surfaces. In accordance with Mitigation Measure MM 4.10-1, the project would require implementation of a Stormwater Pollution Prevention Plan (SWPPP), which would include erosion and sediment control best management practices (BMP) during construction, thereby reducing the potential of erosion and siltation during construction and would control potential flooding events that could occur during construction. Additionally, the proposed new impervious surfaces would generate additional stormwater runoff onsite, albeit in minor quantities compared to existing conditions. However, this could exacerbate potential erosion and sedimentation onsite or downstream. As discussed in Section 4.10, *Hydrology and Water Quality*, of this EIR, Kern County requires development of a drainage plan with the site development grading permit, which will manage stormwater and reduce the risk for offsite impacts due to erosion and impacts on water quality, as implemented by Mitigation Measure ~~MM 4.10-12~~. Design measures are intended to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding on or off site. The drainage plan would include engineer recommendations meant to offset increases in stormwater runoff and would incorporate them into the project design. Since the project site is entirely undeveloped under existing conditions, the project would result in a net increase in the amount of

impervious surfaces as a result of constructing equipment foundations. However, a majority of the project site would remain pervious. Implementation of Mitigation Measure MM 4.10-~~1~~2 would minimize potential increases in runoff and ensure that the retention basins and other stormwater management features are implemented to minimize erosion and sedimentation to less than significant. As discussed in Section 4.10, *Hydrology and Water Quality*, of this EIR, most of the drainage flow within the project site infiltrates into the soils onsite.

The project site is located south and east of the Tehachapi Mountains and is relatively flat. Based on the fire history immediately surrounding the site, moderate zone designation, soil types, and surface hydrology, there is a low potential for the project site to be at risk of post-fire instability or drainage changes.

While the project would introduce new structures to the project site, the structures would not be placed in a highly flammable landscape. In addition, as described further in Section 4.7, *Geology and Soils*, conditions for landslides are not present at the project site, which is characterized by relatively gradual inclines across the site. Furthermore, with the implementation of Mitigation Measure MM 4.10-1 and MM 4.10-2, any potential impacts from runoff and erosion would be minimized. Therefore, the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Impacts would be less than significant with the incorporation of Mitigation Measure MM 4.10-1 and MM 4.10-2.

Mitigation Measure

Implementation of Mitigation Measure MM 4.10-1 and MM 4.10-2 would be required (see Section 4.10, *Hydrology and Water Quality*, for text of Mitigation Measure MM 4.10-1 and MM 4.10-2).

Level of Significance after Mitigation

With implementation of Mitigation Measure MM 4.10-1 and MM 4.10-2, impacts would be less than significant.

Section 4.18, Wildfire, Page 4.18-19

Some related projects could be proposed in areas that could expose people or structures to risks from downslope or downstream flooding or landslides as a result of post-fire instability. Based on the recent fire events in California, all projects would be required to adhere to Kern County's zoning and land use designations and codes, State and local fire codes, and regulations associated with drainage and site stability. These regulations, policies, and codes would reduce the potential for exposing people or structures to risks from downslope or downstream flooding or landslides as a result of post-fire instability. There are no landslide areas within Antelope Valley (DOC, 2023), and with the exception of certain topographical features, the area is relatively flat overall and does not contain many steep slopes, although elevations gradually increase towards the Tehachapi Mountains. Thus, cumulative projects would not be located in areas where post-fire slope instability is a concern. Regarding runoff and drainage, each cumulative project would also require site-specific hydrology and drainage studies for effective drainage design, as is required for the project with implementation of Mitigation Measure MM 4.10-1 and MM 4.10-2. Further, all cumulative projects would disturb more than an acre of ground, therefore requiring conformance with the requirements of the National Pollutant Discharge Elimination System General Construction Permit Program through the preparation of a SWPPP, which would include erosion and sediment control BMPs during construction, thereby reducing the potential of erosion and siltation during construction and would control potential flooding events that could occur during construction. As concluded in the discussion of

project impacts above, with the implementation of Mitigation Measure MM 4.10-1 and MM 4.10-2 the project would not expose people or structures to significant risks due to post-fire slope instability or drainage changes and would have a less-than-significant impact. Nevertheless, given the location in a rural area and limited infrastructure, the project and related projects have the potential to result in a cumulative impact related to *exposing people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes* and, thus, would result in a significant and unavoidable cumulative impact.

Mitigation Measures

Implementation of Mitigation Measures MM 4.10-1, MM 4.10-2, and MM 4.14-1 would be required (see Section 4.10, *Hydrology and Water Quality*, and Section 4.14, *Public Services*, for text of Mitigation Measures MM 4.10-1 and MM 4.14-1, respectively).

Level of Significance after Mitigation

Even with implementation of Mitigation Measures MM 4.10-1, MM 4.10-2, and MM 4.14-1, impacts would remain significant and unavoidable.

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7.3 Responses to Comments

A list of agencies and interested parties who have commented on the Draft EIR is provided below. No individuals commented on the Draft EIR. A copy of each numbered comment letter and a lettered response to each comment are provided following this list.

Federal Agencies

No comment letters from federal agencies were received.

State Agencies

- Comment Letter 1: California Department of Fish and Wildlife (CDFW) (January 3, 2024)
- Comment Letter 2: Lahontan Regional Water Quality Control Board (January 5, 2024)
- Comment Letter 3: California Department of Transportation (Caltrans), District 9 (January 17, 2024)

Local Agencies

- Comment Letter 4: Kern County Public Works Department/Development (December 7, 2023)
- Comment Letter 5: Kern County Fire Department (January 9, 2024)
- Comment Letter 6: Mojave Air and Space Port (January 8, 2024)
- Comment Letter 7: Southern California Gas Company (SoCalGas) (January 18, 2024)

Interested Parties

- Comment Letter 8: Western States Regional Council of Carpenters (January 4, 2024)
- Comment Letter 9: Center for Biological Diversity, Defenders of Wildlife (January 5, 2024)
- Comment Letter 10: International Brotherhood of Electrical Workers, Local Union No. 428 (January 16, 2024)
- Comment Letter 11: International Association of Bridge, Structural, Ornamental, and Reinforcing Iron Workers, Local Union 416 (January 16, 2024)

State Agencies

Comment Letter 1: California Department of Fish and Wildlife

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
 Central Region
 1234 East Shaw Avenue
 Fresno, California 93710
 (559) 243-4005
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



January 03, 2024

Alexis Brito, Planner I
 Kern County Planning and Natural Resources Department
 2700 M Street, Suite 100
 Bakersfield, California 93301
 (661) 862-5029
Britoal@kerncounty.com

**Subject: Enterprise Solar Storage Project by Enterprise Solar Storage, LLC
 Draft Environmental Impact Report (DEIR)
 State Clearinghouse No. 2023050214**

Dear Alexis Brito:

The California Department of Fish and Wildlife (CDFW) received a Draft Environmental Impact Report (DEIR) from Kern County Planning and Natural Resources Department (Kern County), as Lead Agency, for the Enterprise Solar Storage Project by Enterprise Solar Storage, LLC (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

A

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Conserving California's Wildlife Since 1870

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projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs, and nests include 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

A

Unlisted Species: Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened (E, R, or T) on any State or Federal list to be considered E, R, or T under CEQA. If a species can be shown to meet the criteria for E, R, or T, as specified in the CEQA Guidelines section 15380, CDFW recommends it be fully considered in the environmental analysis for the Project.

As a responsible agency, CDFW is responsible for providing, as available, biological expertise during public agency environmental review efforts (e.g., CEQA), focusing specifically on project activities that have the potential to adversely affect fish and wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

PROJECT DESCRIPTION SUMMARY

Proponent: Enterprise Solar Storage, LLC

Objective: The Project proposes to construct and operate a photovoltaic (PV) solar facility and associated infrastructure necessary to generate 600 megawatts (MW) of renewable electrical energy with up to 4,000 megawatt-hours (MWh), or approximately 1,000 MW of energy storage capacity, on approximately 2,320 acres across five noncontiguous sites. The proposed associated infrastructure includes laydown yards, a meteorological station, and a substation. PV panels, inverters, converters, foundations, and transformers will be installed onsite. The Project would also include preferred and optional generation-tie (gen-tie) routes to enter the Windhub Substation, only one of which would be constructed.

B

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Location: The Project site is located in several locations in an unincorporated area in southeastern Kern County, at the western edge of the Antelope Valley and south of the community of Mojave. Portions of the Project site are adjacent to State Route (SR)-58 and SR-14. The Project site is two miles southwest of California City, approximately eight miles north of the unincorporated community of Rosamond, and approximately eight miles northwest of Edwards Airforce Base. The Project site locations occur in Section 6 of Township 10 North, Range 11 West, Sections 20-26, 28, and 36 of Township 11 North, Range 12 West, and Sections 30 and 32 of Township 11 North, Range 11 West, with the interconnection facilities located in Section 17 and 20 of Township 11 North, Range 13 West. In addition, interconnection facilities are located within Sections 17 and 20 of Township 11 North, Range 13 of the San Bernadino Base Meridian (SBBM).

B

Timeframe: Undetermined; however, construction is anticipated to last for approximately 28 months.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist Kern County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, indirect, and cumulative impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the CEQA document.

Aerial imagery of the Project boundary and its surroundings show the area contains desert scrub habitat, Joshua tree woodland, ruderal habitat, and annual grassland habitats, as well as disturbed and developed areas. Based on a review of the Project description, California Natural Diversity Database (CNDDB) records, and the surrounding habitat, several special-status species could potentially be impacted by Project activities.

C

Currently, the DEIR acknowledges that the Project area is within the geographic range of several special status animal species and proposes specific mitigation measures to reduce impacts to less than significant. CDFW has concerns about the ability of some the proposed mitigation measures to reduce impacts to less than significant and avoid unauthorized take for several special status animal species, including the State threatened Mohave ground squirrel (*Xerospermophilus mohavensis*) and Swainson's hawk (*Buteo swainsoni*); the State and federally threatened desert tortoise (*Gopherus agassizii*); the State candidate for listing Crotch's bumble bee (*Bombus crotchii*) and western Joshua tree (*Yucca brevifolia*); the State protected furbearing mammal desert kit fox (*Vulpes macrotis arsipus*); and the State species of special concern burrowing owl (*Athene cunicularia*) and northern California legless lizard (*Anniella pulchra*).

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CDFW also has concerns about the ability of some the proposed mitigation measures to reduce impacts to less than significant and avoid unauthorized take for several special status plant species, including, but not limited to, the California Rare Plant Rank (CRPR) 1B.2 alkali mariposa-lily (*Calochortus striatus*), Barstow woolly sunflower (*Eriophyllum mohavense*), desert cymopterus (*Cymopterus deserticola*), and Latimer's woodland-gilia (*Saltugilia latimeri*); the 1B.1 pale-yellow layia (*Layia heterotricha*); the CRPR 1B.2 recurved larkspur (*Delphinium recurvatum*); the 2B.2 sagebrush loeflingia (*Loeflingia squarrosa var. artemistarum*); and the CRPR 1B.3 southern Sierra monardella (*Monardella linooides ssp. anemonooides*). CDFW also has concerns with potential impacts to migratory and non-migratory nesting birds.

C

Mohave Ground Squirrel

The DEIR notes that the Project site is within the range of Mohave ground squirrel (MGS) and there is suitable habitat within the Project area; however, the DEIR concludes there is low potential for MGS as the suitable habitat is of poor quality, nearby MGS surveys for other projects did not detect their presence, and recent evidence suggests that MGS are potentially absent from much of the western portion of their range. The DEIR does note that a reproductive population of MGS was documented 2.56 miles northeast of the Project site in 2023, but concludes this recent occurrence is separated by a number of barriers that would prohibit MGS from dispersing onto the Project site. As such, the DEIR notes that no focused MGS surveys were conducted as part of the biological technical studies to inform the DEIR. Mitigation Measure MM 4.4-11 was included to mitigate for impacts to MGS and states that, "Preconstruction surveys for small mammals including Mohave ground squirrel and southern grasshopper mouse shall be conducted within all suitable habitat 14 days prior to initial ground-disturbing activities. If a Mohave ground squirrel is found on the construction site, work shall be halted and redirected to areas not supporting this species, and consultation with Kern County and CDFW shall occur. A written report shall be sent to CDFW within 5 calendar days of the sighting. The report shall include the date, time of the finding or incident (if known), and location of the animal. If a dead Mohave ground squirrel is encountered, the remains shall be collected, frozen as soon as possible, and CDFW shall be contacted to determine where the remains would be sent." CDFW does not concur that this measure is sufficient to prevent the take of MGS. In addition to the 2023 documented occurrence of MGS 2.56 miles northeast of the Project site, CDFW is aware of additional potential MGS camera observations from 2023 located approximately 2.5 miles south of the southern portion of the Project site.

D

Due to the fact there are multiple recent MGS observations surrounding the Project site, the Project site has suitable habitat, and no focused MGS surveys were conducted to inform the DEIR, CDFW recommends the following to avoid the unauthorized take of MGS:

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Recommended Mitigation Measure 1: MGS Surveys Prior to Construction

CDFW recommends that a qualified biologist, with appropriate permits, conduct protocol surveys for MGS following the methods described in the Mohave Ground Squirrel Survey Guidelines (CDFW 2023b) during the appropriate survey season and that these surveys be conducted in areas of potential habitat, including marginal habitat covering the entire Project site. Because of the large size of the Project site, it is recommended that the Project applicant propose a surveying methodology for CDFW review and approval prior to initiation of protocol surveys. It is also recommended that the results of these surveys be submitted to CDFW for evaluation. Please note MGS surveys are valid for one year and should be conducted during the survey season immediately prior to the initiation of ground-disturbing activities. As the Project is anticipated to occur over the course of 28 months, these protocol-level surveys may need to be repeated in certain areas over multiple survey seasons, depending on the timing of ground disturbance throughout the Project site.

D

Recommended Mitigation Measure 2: MGS Avoidance Buffer

If protocol-level surveys cannot be completed the survey season immediately prior to ground disturbance for the Project, CDFW recommends that all small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid take and potentially significant impacts. The Project proponent may also choose to assume presence of MGS and obtain an Incidental Take Permit (ITP) prior to initiating ground-disturbing activities.

Recommended Mitigation Measure 3: MGS Take Authorization

If MGS is identified during surveys or at any time during Project construction, and a minimum 50-foot no disturbance buffer is not feasible, then CDFW recommends the Project obtain an ITP, pursuant to Fish and Game Code section 2081 subdivision (b).

Swainson's Hawk

Mitigation Measure MM 4.4-10 proposes to mitigate for impacts to Swainson's hawk (SWHA) by requiring additional surveys following the survey methodology developed by the California Energy Commission (CEC) and CDFW in the *Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California* (Antelope Valley SWHA Protocol) (CEC and CDFW 2010). These additional surveys would be dependent on the time between the survey efforts conducted to inform the DEIR and the start of Project construction. Mitigation Measure MM 4.4-10 would also require pre-construction surveys, avoidance buffers, and the potential need for mitigation. CDFW is

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concerned that several portions of Mitigation Measure MM 4.4-10 either conflict with the Antelope Valley SWHA Protocol, or do not adequately mitigate for the potential for take of SWHA. Additionally, CDFW is concerned with Kern County's misinterpretation of the mitigation recommendations outlined in the Antelope Valley SWHA Protocol. CDFW's concerns are provided in more detail below:

Mitigation Measure MM 4.4-10 states that, "During the nesting season (March 1 through September 15), ensure no new ground disturbances, habitat conversions, or other project-related activities that may cause nest abandonment or forced fledging shall occur within 0.5 mile of an active nest. Buffer zones may be adjusted in consultation with CDFW and with the County." CDFW does not concur with this measure, as any adjustment of a ½-mile SWHA buffer would potentially result in the unauthorized take of the species. As such, if preconstruction surveys detect a nesting SWHA, and a ½-mile no-disturbance buffer is not feasible, it is strongly recommended that the Project proponent consult with CDFW prior to any ground disturbing activities to obtain an ITP pursuant to Fish and Game Code section 2081 subdivision (b) to avoid the unauthorized take of SWHA.

Mitigation Measure MM 4.4-10 continues by stating that, "if active Swainson's hawk nests are found within a 0.5-mile radius of the project site during the preconstruction surveys, the project proponent/operator shall mitigate the loss of any moderate quality Swainson's hawk foraging habitat for any portion of the project site within 5-miles of an active nest at a 0.5:1 ratio. Mitigation lands may be nested with other compensatory lands provided it meets the necessary biological requirements and as determined by appropriate wildlife agency." CDFW does not concur with this portion of the measure as the amount of mitigation potentially required for impacts to SWHA foraging habitat is substantially less than what is recommended in the Antelope Valley SWHA Protocol (CEC and CDFW 2010), which recommends a minimum 2:1 mitigation ratio for impacted SWHA foraging habitat within a five-mile radius of an active SWHA nest. This mitigation ratio is also recommended in the Swainson's Hawk (*Buteo swainsoni*) Guideline Survey & Nesting Raptor Survey Report, which was prepared to inform the DEIR. As such, CDFW recommends the following:

Recommended Mitigation Measure 4: SWHA Foraging Habitat Mitigation

CDFW recommends compensation for the loss of SWHA foraging habitat as described in the Antelope Valley SWHA Protocol (CEC and CDFW 2010) to reduce impacts to foraging habitat to less than significant. The protocol recommends that mitigation for suitable habitat loss within a five-mile radius of an active SWHA nests occur at a minimum 2:1 ratio.

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Desert Tortoise

Mitigation Measure MM 4.4-6 states that, "To protect special-status wildlife species from disturbance during construction, the actions described below shall occur. Within a maximum of 14 days of the start of ground disturbing activities, such as geotechnical drilling, vegetation clearing, and/or grading, the qualified biologist(s) shall conduct preconstruction surveys for special-status species within the Project site, as well as within a minimum of 500 feet (152 meters) from the Project site to account for any inadvertent impacts on adjacent areas. Methodology for preconstruction surveys shall be conducted as appropriate for desert tortoise, burrowing owl, desert kit fox, Swainson's hawk, loggerhead shrike, Le Conte's thrasher, and migratory birds, and shall follow USFWS and/or the CDFW survey protocol guidelines, where appropriate. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within 14 days of the portion of the Project site that would be disturbed. If evidence of occupation by a special-status species is observed, a suitable buffer shall be established by a qualified biologist that results in sufficient avoidance. Following the completion of the pre-construction desert tortoise surveys, the qualified biologist will prepare and submit to the USFWS, CDFW, and the Kern County Planning and Natural Resources Department a letter/memo summarizing the results of the surveys." CDFW does not concur that Mitigation Measure MM 4.4-6, which requires a desert tortoise (DT) preconstruction survey, is sufficient to mitigate for impacts to desert tortoise. The Wildlife Report, prepared to support the conclusions reached in the DEIR, notes that the majority of the Project site was surveyed for DT in April and May of 2022. CDFW would like to note that the Preparing for Any Action That May Occur Within the Range of the Mojave Desert Tortoise (Desert Tortoise Protocol) (USFWS 2019) guidance document states that DT surveys are generally only valid for one year and as such, additional protocol-level surveys would potentially be needed for much of the Project site in 2024. Additionally, while not documented in CNDDDB, CDFW is aware of multiple occurrences of DT within one mile of the Project site that were documented in 2023 in similar habitat.

As the Project site contains suitable habitat for DT, surveys were last conducted for most of the site in 2022, a potential DT burrow was documented in 2022, CDFW is aware of multiple recent occurrences of DT in the immediate vicinity, and there is a strong potential that DT could utilize the Project site over the life of the Project, CDFW strongly recommends the following:

Recommended Mitigation Measure 5: DT Take Authorization

As CDFW is aware of multiple occurrences of DT in the immediate Project vicinity from 2023 and there is a strong potential that DT would utilize the Project site over the life of the Project, CDFW strongly recommends the Project obtain an ITP

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pursuant to Fish and Game Code section 2081 subdivision (b), to avoid the unauthorized take of DT.

Recommended Mitigation Measure 6: DT Surveys Prior to Construction

While CDFW strongly recommends the Project obtain an ITP, in the absence of an ITP, CDFW recommends that additional surveys following the Desert Tortoise Protocol (USFWS 2019) be conducted during the survey season immediately prior to construction. Survey results should be submitted to both CDFW and the United States Fish and Wildlife Service (USFWS). If surveys indicate the presence or potential presence of desert tortoise, CDFW recommends the Project obtain an ITP, pursuant to Fish and Game Code section 2081 subdivision (b).

Mitigation Measure MM 4.4-7 states that, "The project site shall be fenced to keep terrestrial wildlife species from entering the project site during construction, but will provide openings post-construction to enable wildlife to move freely through the project site during operation (e.g., create 4- to 7-inch portals or openings in the fence raising the fence 7 inches above the ground and knuckling the bottom of the fence [i.e., wrapping the fencing material back to form a smooth edge] to protect wildlife passing underneath). A desert tortoise exclusion fence is not required unless desert tortoises are found on site during the preconstruction surveys. This fencing shall be constructed of silt fence material, metal flashing, plastic sheeting, or other materials that will prohibit wildlife from climbing the fence or burrowing below the fence. The fencing shall be buried approximately 12 inches below the surface and extend a minimum of 30 inches above grade. Fencing shall be installed prior to issuance of grading or building permits and shall be maintained during all phases of construction and decommissioning. The fencing shall be inspected by a qualified biologist at a regular interval and immediately after all major rainfall events through the duration of construction and decommissioning activities. Any needed repairs to the fence shall be performed on the day of their discovery. Outside temporarily fenced exclusion areas, the project operator shall limit the areas of disturbance. Parking areas, new roads, staging, storage, excavation, and disposal site locations shall be confined to the smallest areas possible. These areas shall be flagged and disturbance activities, vehicles, and equipment shall be confined to these flagged areas." As noted above, suitable habitat for DT is present within the Project footprint, a potential DT burrow was documented during surveys conducted in support of the DEIR, and several DT were documented within the immediate vicinity of the Project site in 2023. As such, it is recommended that the Project consult with CDFW to obtain an ITP and to facilitate discussions on the installation of desert tortoise fencing during construction.

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Crotch's Bumble Bee

Mitigation Measure MM 4.4-17 states that, "Pre-construction surveys for Crotch's bumble bee and nests shall be conducted within all suitable habitat prior to initial ground disturbing activities. Surveys shall follow the survey methodologies set out in the CDFW Survey Considerations for CESA Candidate Bumble Bee (CDFW, 2023d). The surveys can be phased with project build-out. The purpose of this survey will be to identify active nest colonies inside of permanent and temporary impact areas.

- i. If active Crotch's bumble bee nests are present within the project footprint or a 50-foot buffer surrounding the project footprint, an appropriate no disturbance buffer zone should be established around the nest to reduce the risk of disturbance or accidental take. The buffer will provide at least 50 feet of clearance around nest entrances.
- ii. If establishment of a no-work buffer is feasible, construction activities will not occur within the no-work buffer until a qualified biologist determines that the colony is no longer active (i.e., no Crotch's bumble bees are seen flying in or out of the nest for three consecutive days indicating the colony has completed its nesting season and the next season's queens have dispersed from the colony). Once the nest has been determined inactive, construction activities within the no-work buffer(s) will be allowed to resume.
- iii. If avoidance of the nest is not feasible, the project proponent/operator shall consult with the CDFW regarding potential for project activities to result in take of the Crotch's bumble bee and shall comply with all avoidance, minimization, and compensatory mitigation requirements set forth in any ITP issued for the project by CDFW authorizing take of the species."

G

CDFW concurs with the portion of the measure to conduct Crotch's bumble bee (CBB) surveys following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023c) immediately prior to construction; however, those surveys should be conducted during the appropriate survey season for CBB immediately prior to construction, and, in the event a Crotch's bumble bee (CBB) nest is detected within the Project, consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. If take cannot be avoided, CDFW recommends the Project obtain an ITP, pursuant to Fish and Game Code section 2081 subdivision (b).

Western Joshua Tree

Mitigation Measure MM 4.4-13 states that, "Prior to the issuance of a grading permit, the project proponent/operator shall develop a Joshua Tree Preservation Plan. The Plan

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shall be prepared by a qualified biologist preapproved by Kern County and shall be approved by the appropriate agencies, including Kern County, prior to implementation. At a minimum, the plan shall identify the methods utilized, as applicable, that the project is taking to comply with any CDFW CESA and Western Joshua Tree Conservation Act take requirements and compensatory mitigation related to the protection or mitigation of impacted Joshua Trees and documentation of any such CDFW take authorization and mitigation shall be provided to the Kern County Planning and Natural Resources Department." CDFW concurs with this measure, but strongly recommends the following as western Joshua tree (WJT) were documented throughout the Project site:

Recommended Mitigation Measure 7: WJT Avoidance Buffer

In the absence of obtaining an ITP for the take of WJT, CDFW recommends a minimum no-disturbance buffer for an individual WJT of 290 feet. A 290-foot no-disturbance buffer is warranted to not only avoid impacts to individual trees, but potential impacts to the seed bank as it has been documented that 290 feet is the maximum distance of seed dispersal by rodents (Vander Wall et al. 2006).

Recommended Mitigation Measure 8: WJT Take Authorization

If a minimum 290 foot no disturbance buffer for each identified WJT is not feasible, then CDFW recommends the Project obtain take authorization for WJT through issuance of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b). Additionally, with the passage of the Western Joshua Tree Conservation Act in July 2023, the Project may also have the option to obtain take authorization through issuance of an ITP, pursuant to Fish and Game Code section 1927.3.

Desert Kit Fox

Mitigation Measure MM 4.4-12 states that, "Unoccupied potential dens for desert kit fox or American badger shall have a minimum 30- foot (9-meter) avoidance buffer established.

1. An occupied den outside of the pup-rearing season shall be flagged and ground disturbing activities avoided within 100 feet (30 meters) of the occupied den. An occupied den during the pup-rearing season, also known as a maternity den, should not be disturbed and a minimum 500-foot (152-meter) avoidance buffer established."

CDFW does not concur with this portion of the measure and recommends that the buffer recommendations outlined in the Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 2011)

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document be followed for any potential, known, or natal/pupping desert kit fox (DKF) dens.

Mitigation Measure MM 4.4-7 states that, "The project site shall be fenced to keep terrestrial wildlife species from entering the project site during construction, but will provide openings post-construction to enable wildlife to move freely through the project site during operation (e.g., create 4- to 7-inch portals or openings in the fence raising the fence 7 inches above the ground and knuckling the bottom of the fence [i.e., wrapping the fencing material back to form a smooth edge] to protect wildlife passing underneath)." CDFW concurs with raising perimeter fencing to allow for wildlife movement through the Project site after construction but recommends that the style of fencing selected is the type that is raised four to six inches above ground level and knuckled back to form a smooth edge and permeability for wildlife. CDFW does not recommend the use of openings or portals as they are inadequate to create the permeability necessary to avoid the Project site becoming a barrier to wildlife movement.

Burrowing Owl

Mitigation Measure MM 4.4-9 states that, "A qualified wildlife biologist (i.e., a wildlife biologist with previous burrowing owl survey experience) shall conduct preconstruction surveys of the permanent and temporary impact areas to locate active breeding or wintering burrowing owl burrows within 14 days prior to ground-disturbing activities (i.e., vegetation clearance, grading, tilling). The survey methodology shall be consistent with the methods outlined in the 2012 California Department of Fish and Wildlife Staff Report on Burrowing Owl Mitigation and shall consist of walking parallel transects 7 to 20 meters apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls. Surveys may be conducted concurrently with desert tortoise preconstruction surveys. As each burrow is investigated, surveying biologists shall also look for signs of American badger and desert kit fox. Copies of the survey results shall be submitted to California Department of Fish and Wildlife and the Kern County Planning and Natural Resources Department." CDFW would like to note that it does not appear the biological surveys conducted in support of the DEIR followed the methodology outlined in CDFW's Staff Report on Burrowing Owl Mitigation (CDFG 2012), and only one round of incidental burrowing owl (BUOW) surveys were conducted concurrently with DT surveys in a given year (i.e. only one BUOW surveillance survey occurred within a given portion of the Project site in a given year). Additionally, it appears certain portions of the Project site were only surveyed within the early April timeframe and outside of the recommended timeframe for BUOW breeding surveys.

As Mitigation Measure MM 4.4-9 would only require a preconstruction survey 14 days prior to construction and preconstruction surveys may not coincide with the BUOW

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breeding season, and previous incidental BUOW surveys conducted in support of the DEIR may not have adequately documented BUOW occurrence on the Project site, CDFW recommends the following:

Recommended Mitigation Measure 9: BUOW Surveys Prior to Construction

CDFW recommends assessing presence/absence of BUOW by having a qualified biologist conduct surveys following CDFW's Staff Report on Burrowing Owl Mitigation (CDFW Staff Report) (CDFG 2012) the survey season immediately prior to construction. Specifically, CDFW's Staff Report suggests three or more surveillance surveys conducted during daylight hours, with each visit occurring at least three weeks apart during the peak breeding season (April 15 to July 15).

J

Northern California Legless Lizard

The Project DEIR did not have a discussion on the potential for northern California legless lizard (NCLL) to occur on the Project site, even though CDFW recommended the Project consider this species in the survey recommendations provided in CDFW's June 5, 2023, Notice of Preparation (NOP) comment letter to this Project. The Wildlife Report, prepared in support of the DEIR, notes that the potential for NCLL is low as there is no suitable habitat present within the Project site. CDFW does not agree with the conclusion that no suitable habitat is present as NCLL are known to inhabit a variety of habitats, including desert scrub and sandy washes (Nafis 2023), which are present in various locations throughout the Project site. In addition, there are several recent occurrences of NCLL within a close vicinity of the Project site, particularly within the western portion of the Project site, by the Windhub Substation (CDFW 2023a). As such, CDFW recommends the following:

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Recommended Mitigation Measure 10: NCLL Surveys Prior to Construction

CDFW recommends that a qualified biologist conduct focused surveys for NCLL, and their requisite habitat features within areas of suitable habitat, immediately prior to construction to evaluate potential impacts resulting from ground-disturbance.

Recommended Mitigation Measure 11: NCLL Avoidance Buffer

If NCLL are documented during surveys, avoidance whenever possible is encouraged via delineation and observance of a 50-foot no-disturbance buffer; however, a qualified biologist with the appropriate permit may relocate NCLL out of the project area into a nearby area with suitable habitat.

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Other Special Status Plant Species

Mitigation Measure MM 4.4-5 states that, "Prior to the issuance of grading or building permits, the project proponent will conduct preconstruction botanical surveys to verify the location of alkali mariposa lily in the vicinity of the location where the species was potentially identified during botanical surveys and in potentially affected areas within 200 feet of that location.

- a. If no alkali mariposa lilies are observed during the survey, project activities may begin, and no further mitigation shall be required.
- b. If alkali mariposa lilies are observed during the survey, the areas shall be mapped and photographed, and appropriate measures shall be implemented to avoid impacts on the species to the extent feasible. The areas shall be clearly marked in the field with temporary high visibility ESA fencing or other appropriate markers. ESA fencing/markers shall remain in place throughout the duration of project construction and will be regularly inspected and maintained."

CDFW does not concur that this measure is sufficient to mitigate for impacts to special status plant species that may be present within the Project site. Based on the botanical Inventory Report for the Enterprise Solar Storage Project, Kern County, California (Botanical Report), prepared to support the conclusions reached in the DEIR, the majority of the Project site was surveyed for special-status plants (excluding WJT) during April and May of 2022 and April 2023. CDFW is concerned about the conclusions reached in the DEIR, as the 2022 botanical surveys, which surveyed the majority of the Project site, were conducted within a historic drought year and the Botanical Report notes that a lack of precipitation may have affected the survey results. Additionally, it appears from the Botanical Report that only one botanical survey visit was conducted within the survey area during the 2022 and 2023 surveys. The 2022 botanical surveys identified an unknown *Calochortus* species that only contained basal leaves and, based on the information provided in the Botanical Report, CDFW is unable to determine whether surveys were conducted prior to the actual flowering of these *Calochortus* individuals. As such, CDFW is concerned that surveys were not conducted during the appropriate bloom periods for special-status species such as alkali mariposa-lily. It is important to note that the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities" (CDFW Botanical Survey Protocol) (CDFW 2018) recommends that multiple site visits occur within a year to ensure surveyors are conducting site visits during the appropriate bloom period for all special status plant species that may be present.

As the Project site contains suitable habitat for special-status plants, 2022 surveys were conducted during a historic drought year, and botanical surveys may not have been

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conducted during the appropriate survey period to identify all of the special-status species that may be present on the Project site, CDFW recommends the following:

Recommended Mitigation Measure 12: Other Special Status Plant Surveys Prior to Construction

CDFW recommends the Project area be surveyed for special status plants by a qualified botanist following the CDFW Botanical Protocol (CDFW 2018) the survey season immediately prior to construction. This protocol, which is intended to maximize detectability, includes identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period.

Recommended Mitigation Measure 13: Other Special Status Plant Species Avoidance Buffer

CDFW recommends special status plant species be avoided whenever possible by delineation and observation of a 50-foot no-disturbance buffer from the outer edge of the special status plant population(s) or specific habitat type(s) required by special status plant species. If buffers cannot be maintained, then consultation with CDFW is warranted to determine appropriate minimization and mitigation measures for impacts to special status plant species.

Nesting Birds

Mitigation Measure MM 4.4-8 states that: "To mitigate for potential impacts on nesting birds, special-status birds, and birds protected under the MBTA and California Fish and Game Code during construction and decommissioning activities, the following measures shall be implemented:

- a. During the avian nesting season (February 1–August 31), a qualified biologist shall conduct a preconstruction avian nesting survey no more than 14 days prior to initial vegetation clearing. Surveys need not be conducted for the entire Project site at one time; they may be phased so that surveys occur within 14 days prior to clearing or disturbance in specific areas of the site. The surveying biologist must be qualified to determine the species, status, and nesting stage without causing intrusive disturbance. At no time shall the qualified biologist be allowed to handle the nest or its eggs. The survey shall cover all reasonably potential nesting locations on and within 500 feet (152 meters) of the Project site, including ground nesting species, such as horned lark, nests in shrubs that could support nests, and suitable raptor nest sites such as nearby trees, windrows, and power poles. Access shall be granted on private offsite properties prior to conducting surveys on private land. If access is not obtainable, the biologist shall survey these areas from the nearest vantage point with use of spotting scopes or binoculars.

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- b. If construction is scheduled to occur during the non-nesting season (September 1– February 1), no preconstruction surveys or additional measures are required for non-listed avian species. If active nests are found, a 100-foot (30-meter) no-disturbance buffer shall be created around non-listed avian species' nests unless adjusted by the qualified biologist based on the needs and sensitivities of individual species, and a 300-foot (91-meter) no disturbance buffer shall be created around non-listed raptor species' nests (or a suitable distance otherwise determined in consultation with a qualified biologist). Any nest of a federally or state listed bird species shall require consultation with the appropriate agency (USFWS or the CDFW) to determine the appropriate buffer distance surrounding the nest to provide adequate nest protection. These buffers shall remain in effect until a qualified biologist has determined that the birds have fledged or the Project component(s) have been redesigned to avoid the area. All no-disturbance buffers shall be delineated in the field with visible flagging or fencing material."

CDFW does not concur that Mitigation Measure MM 4.4-8 is sufficient to mitigate impacts to nests during the bird breeding season, particularly for the portions of the measure which directs surveys no more than 14 days prior to the start of construction, defines the breeding season as ending on August 31, and allows for the placement of a 100-foot buffer for non-listed avian species and 300-foot buffer for non-listed raptors. As such, CDFW recommends the following:

M

Recommended Mitigation Measure 14: Nesting Bird Surveys Prior to Construction

If ground-disturbing activities occur during the nesting bird season (February 1 – September 15), CDFW recommends that a qualified biologist conduct pre-activity surveys for active nests no more than one week prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the work site to identify nests and determine their status. A sufficient area means any area potentially affected by a project. In addition to direct impacts (i.e., nest destruction), noise, vibration, odors, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests.

Recommended Mitigation Measure 15: Nesting Bird Monitoring and/or Avoidance Buffer

Once construction begins, CDFW recommends a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral

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changes occur, CDFW recommends the work causing that change to cease and that CDFW be consulted for additional avoidance and minimization measures. If continuous monitoring of identified nests by a qualified biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these no-disturbance buffers is possible when there is a compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. CDFW recommends that a qualified biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

M

Editorial Comments and/or Suggestions

Federally Listed Species: CDFW recommends consulting with USFWS regarding potential impacts to federally listed species including but not limited to desert tortoise. Take under the Federal Endangered Species Act (FESA) is more broadly defined than CESA; take under FESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS in order to comply with FESA is advised well in advance of any Project activities.

N

Lake and Streambed Alteration: Based on the information provided in the DEIR, the Project area contains multiple streams. Project activities may be subject to CDFW's regulatory authority pursuant to Fish and Game Code section 1600 et seq. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation); (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake" includes those that are ephemeral, intermittent, or episodic, as well as those that are perennial.

O

CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration Agreement; therefore, if the DEIR approved for the Project does not adequately describe the Project and its impacts to lakes or streams, a subsequent CEQA analysis may be necessary for LSA Agreement issuance. For information on notification requirements, please refer to CDFW's website (<https://wildlife.ca.gov/Conservation/LSA>) or contact CDFW staff in the Central Region Lake and Streambed Alteration Program at (559) 243-4593 or R4LSA@wildlife.ca.gov.

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Cumulative Impacts: Currently, the DEIR has a very broad analysis of cumulative impacts to biological resources and does not adequately evaluate impacts to specific resources. As such, the conclusions reached in the cumulative impacts analysis are not supported by substantial evidence and the analysis lacks sufficient rigor and transparency to adequately develop reasonable and feasible measures to reduce harm. To address this lack of evidence, CDFW recommends that a cumulative impact analysis be conducted for all biological resources that will either be significantly or potentially significantly impacted by implementation of the Project, including those whose impacts are determined to be less than significant with mitigation incorporated or for those resources that are rare or in poor or declining health and will be impacted by the Project, even if those impacts are relatively small (i.e., less than significant). CDFW recommends cumulative impacts be analyzed for the following species using an acceptable methodology to evaluate the impacts of past, present, and reasonably foreseeable future projects on resources and be focused specifically on the resource, not the Project. An appropriate resource study area should be identified and mapped for each resource being analyzed and utilized for this analysis. CDFW recommends a scientifically sound cumulative impacts analysis be conducted for the following species: MGS, SWHA, DT, CBB, WJT, American badger (AMBA), DKF, BUOW, NCLL, and special status plant species, including, but not limited to, alkali mariposa-lily, Barstow woolly sunflower, desert cymopterus, Latimer's woodland-gilia, pale-yellow layia, recurved larkspur, sagebrush loeflingia, southern Sierra monardella. CDFW staff is available for consultation in support of cumulative impacts analyses as a trustee and responsible agency under CEQA.

P

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form can be found at the following link: . The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

Q

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be

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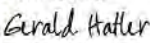
operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

CDFW appreciates the opportunity to comment on the DEIR to assist Kern County Planning and Natural Resources Department in identifying and mitigating Project impacts on biological resources.

If you have any questions, please contact Jeremy Pohlman, Senior Environmental Scientist (Specialist), at the address provided on this letterhead, by telephone at (805) 503-2375 or by electronic mail at Jeremy.Pohlman@wildlife.ca.gov.

Sincerely,

DocuSigned by:

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Gerald Hatler for Julie A. Vance
Regional Manager

ec: State Clearinghouse
Governor's Office of Planning and Research
State.Clearinghouse@opr.ca.gov

United States Fish and Wildlife Service
Patricia Cole; patricia_cole@fws.gov

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REFERENCES

- California Department of Fish and Game. 2012. Staff report on burrowing owl mitigation. California Department of Fish and Game, Sacramento, California, USA.
- California Department of Fish and Wildlife. 2018. Protocols for surveying and evaluating impacts to special status native plant populations and sensitive natural communities. California Department of Fish and Wildlife, Sacramento, California, USA.
- California Department of Fish and Wildlife. 2023a. Biogeographic information and observation system. <https://www.wildlife.ca.gov/Data/BIOS>. Accessed 15 December 2023.
- California Department of Fish and Wildlife. 2023b. Mohave Ground Squirrel Survey Guidelines. California Department of Fish and Wildlife, Sacramento, California, USA.
- California Department of Fish and Wildlife. 2023c. Survey considerations for California Endangered Species Act candidate bumble bee species. California Department of Fish and Wildlife, Sacramento, California, USA.
- California Energy Commission and California Department of Fish and Game. 2010. Swainson's hawk survey protocols, impact avoidance, and minimization measures for renewable energy projects in the Antelope Valley of Los Angeles and Kern Counties, California. California Energy Commission and Department of Fish and Game, Sacramento, California, USA.
- Nafis, G. 2023. Northern Legless Lizard - *Aniella pulchra*. California Herps – A Guide to the Amphibians and Reptiles of California. <https://californiaherps.com/lizards/pages/a.pulchra.html>. Accessed 15 December 2023.
- U.S. Fish and Wildlife Service. 2019. Preparing for any action that may occur within the range of the Mojave desert tortoise (*Gopherus agassizii*). U.S. Fish and Wildlife Service, Washington, D.C., USA.
- U.S. Fish and Wildlife Service. 2011. Standard recommendations for the protection of the San Joaquin kit fox prior to or during ground disturbance. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento, CA, USA.
- Vander Wall, S. B., T. Esque, D. Haines, M. Garnett, and B. A. Waitman. 2006. Joshua tree (*Yucca brevifolia*) seeds are dispersed by seed-caching rodents. *Ecoscience* 13:539–543.

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Attachment 1

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM
(MMRP)**

PROJECT: Enterprise Solar Storage Project

SCH No.: 2023050214

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
<i>Before Disturbing Soil or Vegetation</i>	
MGS	
Recommended Mitigation Measure 1: MGS surveys prior to construction	
Recommended Mitigation Measure 3: MGS take authorization	
SWHA	
Recommended Mitigation Measure 4: SWHA foraging habitat mitigation	
DT	
Recommended Mitigation Measure 5: DT take authorization	
Recommended Mitigation Measure 6: DT surveys prior to construction	
WJT	
Recommended Mitigation Measure 8: WJT take authorization	
BUOW	
Recommended Mitigation Measure 9: BUOW surveys prior to construction	
NCLL	
Recommended Mitigation Measure 10: NCLL surveys prior to construction	
Other Special Status Plant Species	
Recommended Mitigation Measure 12: Other special status plant surveys prior to construction	
Nesting Birds	
Recommended Mitigation Measure 14: Nesting bird surveys prior to construction	
<i>During Construction</i>	
MGS	
Recommended Mitigation Measure 2: MGS avoidance buffer	
WJT	
Recommended Mitigation Measure 7: WJT avoidance buffer	
NCLL	

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Recommended Mitigation Measure 11: NCLL avoidance buffer	
Other Special Status Plant Species	
Recommended Mitigation Measure 13: Other special status plant species avoidance buffer	
Nesting Birds	
Recommended Mitigation Measure 15: Nesting bird monitoring and avoidance buffer	

Response to Comment Letter 1: California Department of Fish and Wildlife

A - C: Comments A through C are introductory materials related to the Enterprise Solar Storage Project (Project) Draft Environmental Impact Report (DEIR) that do not require any responses.

D: The commenter recommends that a qualified biologist with the required permits conduct a protocol survey for Mohave ground squirrel (MGS) prior to construction following the methods described in the 2023 Mohave Ground Squirrel Survey Guidelines during the appropriate survey season and that these surveys be conducted in areas of potential habitat, including marginal habitat covering the entire project site. The commenter further recommends that the project applicant propose a surveying methodology for CDFW review and approval prior to initiation of protocol surveys. It is recommended that the results of these surveys be submitted to CDFW for evaluation. The commenter also recommends that if protocol surveys are not feasible, small mammal burrows be avoided, including an avoidance buffer of 50 feet and that the project proponent obtain an Incidental Take Permit (ITP) for MGS should be species be observed at any time and burrows cannot be avoided.

As discussed in the Draft EIR (p. 4.4-26), no individual MGS were observed during the habitat assessment or wildlife surveys conducted for the project or during protocol trapping surveys for MGS conducted since 1998 at 71 sites within 8 miles of the project site. Sixteen additional live-trapping and camera trapping efforts in this region also produced negative results. However, a MGS reproductive population was discovered in June 2023 approximately 2.56 miles northeast of the project site – the first and only detection of a reproductive population in this region. Radiotelemetry studies have shown that juvenile MGS are capable of dispersing up to 5 miles from their birthplace; however, there are a number of barriers between the project site and the newly discovered juvenile population to the north that would make this type of movement very difficult, including urban development associated with community of Mojave; the Mojave Airport; streets and freeways (i.e. SR-58 a four-lane divided freeway); existing solar fields; a sewage treatment plant; and other developed areas. The commenter indicates that it is aware of “potential” MGS observations approximately 2.5 miles south of the southern portion of the project site; however, the commenter provides no additional details of the observations for the County to consider here. Regardless, there also are a number of barriers between the site and the potential observation that would make dispersal very difficult, including urban development, streets, existing solar development, and Edwards Air Force Base. For these reasons, there is a low potential for MGS to occur within the project site as discussed in the Draft EIR (page 4.4-26).

Although there is a low potential for MGS to occur within the project site, the DEIR acknowledges the potential for impacts to MGS should it occur on the site. Therefore, and consistent with the commenter’s recommendations, the DEIR includes various mitigation measures to avoid and minimize potential impacts to MGS and reduce impacts to less than significant. In particular, Mitigation Measure MM 4.4-11 requires preconstruction surveys for small mammals, including MGS within suitable habitat. The project proponent already has engaged CDFW regarding surveying methods for MGS, which CDFW will review and approve prior to further surveying efforts on the project site, which are anticipated to begin in the spring of 2024 prior to construction and consistent with MM 4.4-11.

Additionally, if MGS are observed during preconstruction surveys or anytime during construction, Mitigation Measure MM 4.4-11 requires that work be halted in the area of observation and that the project proponent consult with Kern County and CDFW, including preparation of a written report

to be sent to CDFW within 5 days of the observation, as well as preparation of a Mohave Ground Squirrel Avoidance and Monitoring Plan. This Mohave Ground Squirrel Avoidance and Monitoring Plan would include measures such as avoidance of burrows, as noted in the comment, and consultation with CDFW may result in the project proponent obtaining an Incidental Take Permit (ITP) as noted in the comment. The project proponent/operator will also implement the following measures to help avoid, minimize, and/or reduce impacts to MGS: Mitigation Measures MM 4.4-1 through 4.4-4, MM 4.4-6, MM 4.4-7, MM 4.4-11, MM 4.1-1, MM 4.1-3, MM 4.3-2, MM 4.3-3, MM 4.9-2, and MM 4.13-1. No changes to the EIR are required to address the comment. Furthermore, Mitigation Measure 4.4-11 shall read as follows.

MM 4.4-11: Preconstruction surveys for small mammals including Mohave ground squirrel and southern grasshopper mouse shall be conducted within all suitable habitat 14 days prior to initial ground-disturbing activities. If a Mohave ground squirrel is found on the construction site, work shall be halted and redirected to areas not supporting this species, and consultation with Kern County and CDFW shall occur. A written report shall be sent to CDFW within 5 calendar days of the sighting. The report shall include the date, time of the finding or incident (if known), and location of the animal. If a dead Mohave ground squirrel is encountered, the remains shall be collected, frozen as soon as possible, and CDFW shall be contacted to determine where the remains would be sent.

If Mohave ground squirrels are detected during any Project surveys, the applicant shall prepare a Mohave Ground Squirrel Avoidance and Monitoring Plan. If it is determined from surveys that Mohave ground squirrels are not present, no further action is required.

The Mohave Ground Squirrel Avoidance and Monitoring Plan shall include, at a minimum:

- a. Specifications for designation of qualified Project biologists for conducting surveys and monitoring.
- b. Methods for excluding Mohave ground squirrels from the work area, such as fencing.
- c. Measures and procedures related to monitoring of construction for presence of Mohave ground squirrels.
- d. A requirement to cease work if a Mohave ground squirrel is encountered in a work area.
- e. Requirements for the worker environmental awareness training and education program training as it pertains to Mohave ground squirrels reporting requirements.
- f. All documented active MGS burrows shall be avoided by a minimum of 50 feet to avoid take and potentially significant impacts; if avoidance is not feasible, the project proponent shall consult with CDFW to determine whether an ITP is necessary.

E: The comment states that downward adjustment of the 0.5-mile buffer around an active Swainson's hawk (SWHA) nest is not appropriate and that if a 0.5-mile buffer cannot be maintained around an active nest, it is recommended the project proponent consult with CDFW to obtain an ITP to avoid unauthorized take of SWHA. The comment further states that Mitigation Measure MM 4.4-10 calls for a 0.5:1 mitigation ratio for loss of SWHA foraging habitat within 5 miles of an active nest and the commenter recommends a 2:1 mitigation ratio for SWHA foraging habitat within 5 miles of an active nest. In response to this comment, the DEIR has been revised as follows:

MM 4.4-10: To determine the presence and activity of any known or new nests of Swainson's hawk, a qualified biologist shall conduct nest surveys for Swainson's hawk prior to commencement of construction activities. The surveying biologist must be approved by CDFW and Kern County and be qualified to determine the status and stage of nesting by Swainson's hawk. An initial nesting season survey must be performed no more than 1 year prior to the commencement of construction activities. The surveys shall be conducted during the nesting season for Swainson's hawk (March 1 through September 15) within both the construction footprint and within all accessible areas within a 5-mile buffer around the proposed construction areas. Areas within the 5-mile buffer that are not accessible shall be surveyed by binocular and spotting scope. The surveys can be phased with project build-out. The nesting season surveys shall follow the protocols set out in the CEC and CDFW Guidance (2010).

If construction activities are scheduled to be initiated during the nesting season, a qualified biologist shall conduct a pre-construction survey of all accessible areas within 0.5 mile of the construction site to determine the presence and activity of known or new Swainson's hawk nests. Inaccessible areas shall be surveyed by binocular and spotting scope. The preconstruction survey shall occur within 30 days prior to the start of construction. Depending on project timing, the pre-construction survey may not be necessary if the initial nesting season surveys overlap with the pre-construction survey timing or if construction activities will start outside of the Swainson's hawk nesting season (September 16 to February 28). The pre-construction nest survey shall follow the protocols set out in the CEC and CDFW Guidance (2010).

To the extent feasible, the project applicant shall design the project site to allow sufficient foraging and fledging area to maintain active Swainson's hawk nests located adjacent to the project site. The solar panels and infrastructure would be set back from Swainson's hawk nests at a distance determined after consultation with Kern County and CDFW. Avoided habitat would not count toward impacts used in determining compensatory mitigation requirements described below and may be used to satisfy mitigation requirements if protected by a conservation easement.

During the nesting season (March 1 through September 15), ensure no new ground disturbances, habitat conversions, or other project-related activities that may cause nest abandonment or forced fledging shall occur within 0.5 mile of an active nest. ~~Buffer zones may be adjusted in consultation with CDFW and with the County.~~

If active Swainson's hawk nests are found within a 0.5-mile radius of the project site during the preconstruction surveys, the project proponent/operator shall mitigate the loss of any moderate quality Swainson's hawk foraging habitat for any portion of the project site within 5-miles of an active nest at a 0.5:1 ratio. Mitigation lands may be nested with other compensatory lands provided it meets the necessary biological requirements and as determined by appropriate wildlife agency. If preconstruction surveys detect a nesting Swainson's hawk, and a 0.5-mile no-disturbance buffer is not feasible, it is strongly recommended that the Project proponent consult with CDFW prior to any ground disturbing activities to determine if an ITP is necessary.

The project would convert approximately 2,320 acres of predominantly moderately suitable SWHA foraging habitat to utility-scale solar facility; however, these 2,320 acres of moderately suitable

foraging habitat represent a very small percentage of highly and moderately suitable foraging habitat within 5 miles of the project site. Thus, the conversion of this habitat to a solar facility would be negligible in comparison to the vast amount of foraging habitat in the vicinity. Further, there is evidence indicating that SWHA continue to use solar facility sites for foraging habitat once operational. Recent studies indicate that both vineyards and solar generation facilities provide some foraging habitat value for SWHAs (Estep 2013; Swolgaard et al. 2008). Because much of the typical solar generation facility is composed of open areas, there is potential for use of solar projects by SWHA and other raptors for foraging, particularly when vegetation is allowed to grow onsite and provide habitat for prey species. Indeed, Estep (2013) conducted a pilot study in Sacramento County in 2012 to evaluate the foraging use of solar arrays by SWHAs and other raptor species relative to the surrounding agricultural landscape. In that study, three photovoltaic solar generation facilities in Sacramento County, ranging from 105 to 200 acres in size, were evaluated for foraging use by SWHAs and other raptors. All three of the solar generation facilities evaluated in the foraging study are located within a diverse agricultural landscape of similarly sized parcels to the project's facilities. The study was conducted after the three facilities had been constructed, operation had commenced, and grass cover had been established. The three facilities were being managed to allow establishment of grasses beneath and between the solar panels, which allowed for the establishment of rodent populations which in turn are prey for raptors. The vegetation also serves as refugia for rodents to assist with re-establishment of rodent populations on adjacent farmlands following cultivation. Results of the study indicated that the solar array fields were used for foraging by SWHA similar to other moderate to high value agricultural cover types and the presence of the solar facilities did not appear to affect the overall use of the landscape by SWHAs or other raptors. As one element of an otherwise diverse agricultural matrix, the solar array fields provided a consistent and an apparently reasonably accessible source of prey for SWHAs. The study also indicated that the solar arrays were used at a higher rate than would be expected based on their availability in the landscape, meaning that SWHAs appeared to be selectively foraging within solar arrays over other crop types. The study therefore suggests that conversion of otherwise suitable foraging habitat to solar arrays does not necessarily constitute a complete loss of foraging habitat for SWHA and that with proper vegetation management, could provide important foraging habitat for SWHA during periods when surrounding agricultural crops are not suitable.

In 2017, HELIX Environmental Planning (HELIX) conducted a study of SWHA foraging at the Mustang Solar Generation Facility, which is an operational solar facility in Kings County near the intersection of State Route 198 and Avenal Cutoff Road (HELIX 2018). The study expanded on the Estep study and showed that SWHAs will forage in a large-scale solar generation facility (more than 1,000 acres). The study compared SWHA foraging use of the 1,100-acre solar facility to an approximately 4,800-acre off-site area that included active and fallow agricultural lands. HELIX found that SWHAs foraged in the operational RE Mustang Solar Generation Facility at a higher intensity (determined by the minutes of forage per unit area) than in surrounding lands and observed no foraging behavior on the fallow portion of the survey area. This result is consistent with the findings of Estep (2013), suggesting that solar generation facilities may provide higher-value foraging habitat than active and idle agricultural lands. The results of these studies indicate that solar generation facilities are used for foraging by SWHA similar to other moderate to high value agricultural cover types.

Consistent with these studies, pursuant to MM 4.1-3, the Project would be required to revegetate temporarily disturbed areas and maintain vegetation/ground cover which would in turn allow for

establishment of rodent populations on the Project Site that would support SWHA foraging. Based on these considerations, the County has revised Mitigation Measure MM 4.4-10 to require the project to mitigate at a ratio of 1:1 for the loss of moderate quality Swainson's hawk foraging habitat available on the project site within 5 miles of an active nest. The County has determined that mitigating at this ratio would appropriately and adequately mitigate impacts to Swainson's hawk foraging habitat to less than significant.

- F:** The comment states that desert tortoise surveys on the site were last conducted in 2022 and one potential burrow was observed in addition to other sightings in the vicinity of which the commenter is aware. Additionally, the commenter states that typically surveys for desert tortoises are only good for one year. The comment further states that due to the potential for desert tortoise to utilize the project site, it is recommended the project proponent obtain an ITP to avoid unauthorized take of desert tortoise. If an ITP is not obtained, the commenter recommends additional surveys be conducted following the 2019 Desert Tortoise Protocol during the survey season immediately prior to construction.

The project site is at the periphery of the species' current range, and no desert tortoise or definite desert tortoise sign were observed during the protocol-level surveys conducted for the project, such that the project site was determined to have a low potential for desert tortoise to occur, as discussed in the Draft EIR (page 4.4-22). Further, most of the project site has been heavily grazed by domestic sheep, which reduces the quality of habitat for desert tortoise, and no tortoises were observed during multiple surveys in 2021, 2022, and 2023. Nonetheless, the DEIR recognizes that if the species is present, direct and indirect impacts to the species could occur. However, as described in the DEIR, recognizing a CNDDDB occurrence east of the project site and that the project is located at the western edge of the species' range, the County has added MM 4.4-20, to require additional focused desert tortoise surveys on Site 4 and the southeastern portion of Site 3, as shown on **Figure 4.4-1, Focused Desert Tortoise Survey Areas**.

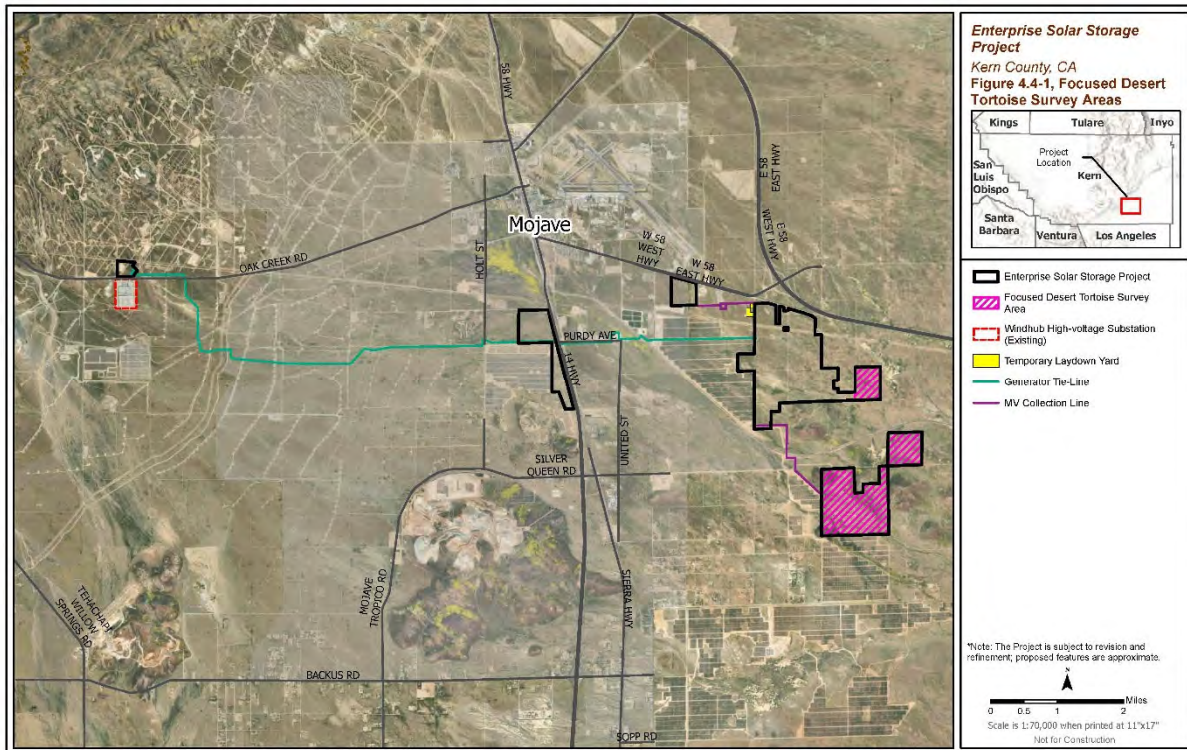


Figure 4.4-1 Focused Desert Tortoise Survey Areas

In response to this comment, the DEIR has been revised as follows:

“MM 4.4-6: To protect special-status wildlife species from disturbance during construction, the actions described below shall occur. Within a maximum of 14 days of the start of ground-disturbing activities, such as geotechnical drilling, vegetation clearing, and/or grading, the qualified biologist(s) shall conduct preconstruction surveys for special-status species within the Project site, as well as within a minimum of 500 feet (152 meters) from the Project site to account for any inadvertent impacts on adjacent areas. Methodology for preconstruction surveys shall be conducted as appropriate for desert tortoise, burrowing owl, desert kit fox, Swainson’s hawk, loggerhead shrike, Le Conte’s thrasher, Northern California legless lizard, and migratory birds, and shall follow USFWS and/or the CDFW survey protocol guidelines, where appropriate. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within 14 days of the portion of the Project site that would be disturbed. If evidence of occupation by a special-status species is observed, a suitable buffer shall be established by a qualified biologist that results in sufficient avoidance. Following the completion of the pre-construction desert tortoise surveys, the qualified biologist will prepare and submit to the USFWS, CDFW, and the Kern County Planning and Natural Resources Department a letter/memo summarizing the results of the surveys.

MM 4.4-20: During the appropriate survey season prior to the start of project ground disturbance activities, a focused desert tortoise survey consistent with the USFWS 2019 desert

tortoise survey protocol shall be conducted by a qualified biologist in the project areas identified on **Figure 4.4-1, Focused Desert Tortoise Survey Areas.** Should surveys indicate the presence or potential presence of desert tortoise, CDFW shall be consulted to determine the necessity for the Project to obtain an ITP, pursuant to Fish and Game Code section 2081 subdivision (b). If no evidence of these special-status species is detected, no further action is required.”

With regards to fencing, as discussed in the Draft EIR (p. 4.4-45), additional avoidance, minimization, and/or mitigation measures, such as buffers and permanent tortoise-proof exclusion fencing, will be implemented on any of the five geographically distinct Sites where desert tortoise are observed and/or detected. A desert tortoise exclusion fence is not required if no desert tortoises are found on site during the preconstruction surveys, consistent with Mitigation Measure MM 4.4-7. If desert tortoise is present on-site, individual(s) will be allowed to leave the site on their own, and in consultation with USFWS and CDFW, the project proponent may be required to install exclusionary/perimeter fencing. The lead agency has determined that implementation of Mitigation Measures MM 4.4-1 through 4.4-4, MM 4.4-6, MM 4.4-7, MM 4.4-14, MM 4.1-1, MM 4.1-3, MM 4.3-2, MM 4.3-3, MM 4.9-2, MM 4.13-1, and the addition of MM 4.4-20 would ensure that potential impacts to desert tortoise are less than significant.

- G:** The commenter concurs with Mitigation Measure MM 4.4-17 requiring the project proponent to conduct CBB surveys following the methodology outlined in the 2023 Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species and states those surveys should be conducted during the appropriate survey season for CBB immediately prior to construction. In the event a CBB nest is detected within the project site, the commenter recommends consultation with CDFW to implement project activities and avoid take and/or for the project proponent to obtain an ITP to avoid unauthorized take of CBB.

Mitigation Measure MM 4.4-17 includes requirements that CBB surveys follow the survey methodologies set out in the 2023 CDFW Survey Considerations for CESA Candidate Bumble Bees, including conducting surveys during the appropriate survey season immediately prior to construction. If nests are located and avoidance is infeasible, Mitigation measure MM4.4-17 also provides for consultation with CDFW and requires the project proponent to comply with all avoidance, minimization, and compensatory mitigation requirements if an ITP is issued for the project by CDFW. The project proponent will coordinate with CDFW regarding survey methodology for this large of a site prior to initiation of the surveys. No changes to the EIR are required to address the comment.

- H:** The comment states that in the absence of obtaining an ITP for the take of western Joshua tree (WJT), CDFW recommends a minimum no-disturbance buffer for an individual WJT of 290 feet and if a minimum 290 foot no disturbance buffer for each identified WJT is not feasible, then the commenter recommends the project obtain take authorization for WJT through issuance of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) or pursuant to Fish and Game Code section 1927.3.

The project proponent has applied for and intends to obtain an ITP for WJT pursuant Fish and Game Code section 1927.3, consistent with Mitigation Measure MM 4.4-13 and mitigate impacts to WJT to less than significant. No changes to the EIR are required to address this comment.

- I:** For protection of desert kit fox (DKF) the comment states that CDFW recommends that the buffer

recommendations outlined in the 2011 Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance be implemented.

Mitigation Measure MM 4.4-9 requires a qualified biologist conduct a pre-construction survey with a 500-foot buffer. If dens and/or burrows that could support DKF are discovered during the pre-construction surveys, the avoidance buffers outlined below should be established (consistent with the 2011 Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance). No work would occur within these buffers unless the biologist approves and monitors the activity:

- Potential or atypical den – 50 feet
- Known den – 100 feet
- Natal or pupping den – 500 feet, unless otherwise specified by CDFW.

To comply with CDFW’s comment, Mitigation Measure 4.4-12 will now read as follows:

“MM 4.4-12: The Project proponent/operator shall implement the following measures to ensure potential impacts on American badger and desert kit foxes resulting from Project construction, operation and maintenance, and decommissioning activities would be avoided and minimized to a less-than-significant level:

- a. A qualified biologist shall be onsite during all initial grading and construction, preconstruction ground-disturbing activities, and decommissioning activities.
- b. A qualified biologist (that is, a biologist with the ability to identify the species and possessing previous mammal survey and avoidance and minimization protection experience) shall conduct preconstruction surveys of all areas that would be permanently or temporary impacted, plus a 500-foot (152-meter) buffer, to locate unoccupied and occupied dens.
- c. If occupied Desert Kit Fox dens are identified on-site, the project proponent shall establish appropriate buffers limiting all construction activities near an active den. Buffers include (50 Feet) for a potential or atypical den, (100) feet for a known den and (500) feet for a natal or pupping den, unless otherwise specified by the California Department of Fish and Wildlife (CDFW). If required buffers are not possible to protect the species, then the project proponent shall confer with CDFW on the need for take authorization through the acquisition of an incidental take permit, pursuant to Fish and Game Code section 2081 subdivision.

~~Unoccupied potential dens for desert kit fox or American badger shall have a minimum 30 foot (9 meter) avoidance buffer established.~~

~~1. An occupied den outside of the pup rearing season shall be flagged and ground-disturbing activities avoided within 100 feet (30 meters) of the occupied den. An occupied den during the pup rearing season, also known as a maternity den, should not be disturbed and a minimum 500 foot (152 meter) avoidance buffer established.~~

1. Desert kit fox pup-rearing season: February 1–August 1.
2. American badger pup-rearing season: March 15–July 31.

3. If outside the pup-rearing season an occupied den cannot be avoided, a passive relocation program can occur. The program shall consist of determining status of the den (confirming it is a nonmaternity den through remote camera monitoring), excluding American badger or desert kit fox from the occupied nonmaternity den by installation of one-way doors at burrow entrances, monitoring of the den for 7 days to confirm usage has been discontinued, and excavation and collapse of the den. Passive relocation occurs by slowly excavating the burrow (either by hand or by mechanized equipment) under the direct supervision of a qualified biologist and removing no more than 4 inches (10 centimeters) of soil at a time. Passive relocation cannot occur during the pup-rearing season unless remote camera monitoring has documented the den as a non-maternity den. A written report documenting the passive relocation shall be provided to the Kern County Planning and Natural Resources Department within 30 days of relocation.
4. Dens or burrows that are determined to be inactive as determined by a qualified biologist within the Project site, shall be collapsed by a qualified biologist to prevent occupation of the den between the time of the preconstruction survey and construction activities.”

The commenter also recommends that perimeter fencing installed during construction be raised after construction four to six inches above ground level and knuckled back to form a smooth edge and permeability for wildlife but does not recommend the use of openings or portals. Mitigation Measure MM 4.4-7 requires the project site be fenced to keep terrestrial wildlife species from entering the project site during construction, but will provide openings post-construction to enable wildlife to move freely through the project site during operation (e.g., create 4- to 7-inch portals or openings in the fence raising the fence 7 inches above the ground and knuckling the bottom of the fence [i.e., wrapping the fencing material back to form a smooth edge] to protect wildlife passing underneath). A desert tortoise exclusion fence is not required unless desert tortoises are found on site during the preconstruction surveys. The comment stating the preference for not including openings or portals and rather raising the fence and knuckling it, as described above, is noted. To comply with the recommendation of CDFW while still allowing for installation of desert tortoise exclusion fencing where necessary, Mitigation Measure 4.4-7 will now read as follows:

“MM 4.4-7: The project consists of five geographically distinct Sites. Each project Ssite shall be fenced to keep terrestrial wildlife species from entering the project site during construction. Following construction, for Sites around which desert tortoise exclusion fencing is not installed but will provide openings post construction to enable wildlife to move freely through the project site during operation (e.g., create 4 to 7 inch portals or openings in the fence raising the fence 7 the fencing shall be raised 4 to 6 inches above the ground and knuckling the bottom of the fence shall be knuckled {(i.e., wrapping the fencing material back to form a smooth edge)} to protect wildlife passing underneath). A desert tortoise exclusion fence is not required unless desert tortoises are found on Ssite during the preconstruction surveys. ~~This fencing~~ If desert tortoise exclusion fencing is required, it shall be constructed of silt fence material, metal flashing, plastic sheeting, or other materials that will prohibit wildlife from climbing the fence or burrowing below the fence. The fencing shall be buried approximately 12 inches below the surface

and extend a minimum of 30 inches above grade. Fencing shall be installed prior to issuance of grading or building permits and shall be maintained during all phases of construction and decommissioning. The fencing shall be inspected by a qualified biologist at a regular interval and immediately after all major rainfall events through the duration of construction and decommissioning activities. Any needed repairs to the fence shall be performed on the day of their discovery. Outside temporarily fenced exclusion areas, the project operator shall limit the areas of disturbance. Parking areas, new roads, staging, storage, excavation, and disposal site locations shall be confined to the smallest areas possible. These areas shall be flagged and disturbance activities, vehicles, and equipment shall be confined to these flagged areas.”

The lead agency has determined that implementation of Mitigation Measures MM 4.4-1 through 4.4-4, MM 4.4-6, MM 4.4-7 (as revised), MM 4.4-9, MM 4.4-12, MM 4.1-1, MM 4.1-3, MM 4.3-2, MM 4.3-3, MM 4.9-2, and MM 4.13-1 would ensure that potential impacts to desert kit fox are less than significant. No changes to the EIR are required to address the comment.

- J:** The comment states that Mitigation Measure MM 4.4-9 (requiring a preconstruction survey for burrowing owl [BUOW] 14 days prior to construction) may not coincide with the BUOW breeding season and previous incidental BUOW surveys conducted in support of the DEIR may not have adequately documented BUOW occurrence on the project site, such that it is recommended a qualified biologist conduct surveys to determine presence/absence of BUOW following CDFW’s 2012 Staff Report on Burrowing Owl Mitigation (CDFW Staff Report) during the survey season immediately prior to construction. Specifically, CDFW’s Staff Report suggests three or more surveillance surveys conducted during daylight hours, with each visit occurring at least three weeks apart during the peak breeding season (April 15 to July 15).

The Draft EIR confirms that “*burrowing owls are present on the site,*” (p. 4.4-48). As burrowing owls are confirmed on the site, the Draft EIR provides mitigation measures to avoid, minimize, and mitigate impacts to the species. Specifically, Mitigation Measure MM 4.4-9 requires preconstruction survey no less than 14 days and no more than 30 days prior to construction by a qualified biologist to identify the specific, known locations of BUOW immediately prior to construction. The purpose of these surveys is to locate BUOW immediately prior to project construction so that appropriate avoidance buffers may be established to minimize construction impacts on the species. The survey methodology shall be consistent with the methods outlined in the 2012 California Department of Fish and Wildlife Staff Report on Burrowing Owl Mitigation and shall consist of walking parallel transects 7 to 20 meters apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls. MM 4.4-9 also requires avoidance buffers (see below), within which no work would occur unless the biologist approves and monitors the activity.

Burrowing Owl (active burrows):

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting Sites	4/1-8/15	200m	500m	500m
Nesting Sites	8/16-10/15	200m	200m	500m
Nesting Sites	10/16-3/31	50m	100m	500m

The lead agency has determined that implementation of Mitigation Measures MM 4.4-1 through 4.4-4, MM 4.4-6, MM 4.4-8, MM 4.4-9, MM 4.4-15, MM 4.4-16, MM 4.1-1, MM 4.1-3, MM 4.1-6, MM 4.1-7, MM 4.3-2, MM 4.3-3, MM 4.9-2, and MM 4.13-1 would ensure that potential impacts to BUOW are less than significant. No changes to the EIR are required to address the comment.

K: The comment states that suitable habitat for Northern California legless lizard (NCLL) is present onsite and recommends that a qualified biologist conduct focused surveys for NCLL, and their requisite habitat features within areas of suitable habitat, immediately prior to construction to evaluate potential impacts resulting from ground-disturbance. The commenter also states surveys were recommended at the NOP stage for this project. CDFW also does not agree that there is no suitable habitat present, as NCLL are known to inhabit a variety of habitats, including desert scrub and sandy washes. Additionally, the commenter states there are several recent occurrences of NCLL within close vicinity of the project site.

As documented in the *Wildlife Report for the Enterprise Solar Storage Project* provided as Appendix E1 of the EIR, the potential for the NCLL to occur on the project site is low. As described in *California Amphibian and Reptile Species of Special Concern* (Thomson, et. al, 2016), NCLL occurs in moist, warm, loose soil with plant cover. Moisture is essential. The species occurs in sparsely vegetated areas of coastal beach dunes, chaparral, oak woodland and mixed conifer forest, desert scrub, sandy washes and alluvial fans, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat. The project site does not contain suitable moist loose substrates, leaf litter, and surface objects and portions of the project site have also been too disturbed by sheep grazing and other stressors and disturbances to provide suitable habitat for the species. The commenter indicates that there are several occurrences of NCLL near the western portion of the project but does provide further details for the County to evaluate here. However, because the project site does not contain suitable moist loose substrates, leaf litter, and surface objects, suitable habitat for NCLL is not present on the project site. Although not necessary to mitigate a potentially significant impact, the County has revised MM 4.4-6 as follows:

“MM 4.4-6: To protect special-status wildlife species from disturbance during construction, the actions described below shall occur. Within a maximum of 14 days of the start of ground-disturbing activities, such as geotechnical drilling, vegetation clearing, and/or grading, the qualified biologist(s) shall conduct preconstruction surveys for special-status species within the Project site, as well as within a minimum of 500 feet (152 meters) from the Project site to account for any inadvertent impacts on adjacent areas. Methodology for preconstruction surveys shall be conducted as appropriate for desert tortoise, burrowing owl, desert kit fox, Swainson’s hawk, loggerhead shrike, Le Conte’s thrasher, Northern California legless lizard, and migratory birds, and shall follow USFWS and/or the CDFW survey protocol guidelines, where appropriate. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within 14 days of the portion of the Project site that would be disturbed. If evidence of occupation by a special-status species is observed, a suitable buffer shall be established by a qualified biologist that results in sufficient avoidance. Following the completion of the pre-construction desert tortoise surveys, the qualified biologist will prepare and submit to the USFWS,

CDFW, and the Kern County Planning and Natural Resources Department a letter/memo summarizing the results of the surveys.

If Northern California legless lizard are documented during surveys, avoidance whenever possible is encouraged via delineation and observance of a 50-foot no-disturbance buffer; however, a qualified biologist with the appropriate permit may relocate Northern California legless lizard out of the project area into a nearby area with suitable habitat.”

L: The comment states that the Project site contains suitable habitat for special-status plants, that the 2022 botanical surveys conducted for the project were during a historic drought year, and the botanical surveys may not have been conducted during the appropriate survey period to identify all of the special-status species that may be present on the project site. The comment further recommends that the project site be surveyed for special status plants by a qualified botanist following the 2018 CDFW Botanical Protocol during the survey season immediately prior to construction. In response to the comments written by CDFW, the DEIR has been revised as follows:

- “MM 4.4-5:** Prior to the issuance of grading or building permits, the project proponent will conduct pre-construction botanical surveys, by a qualified botanist following the CDFW Botanical Protocol (CDFW 2018) the survey season immediately prior to construction, to verify the location of alkali mariposa lily in the vicinity of the location where the species was potentially identified during botanical surveys and in potentially affected areas within 200 feet of that location.
- a. If no alkali mariposa lilies are observed during the survey, project activities may begin, and no further mitigation shall be required.
 - b. If alkali mariposa lilies are observed during the survey, the areas shall be mapped and photographed, and appropriate measures shall be implemented to avoid impacts on the species to the extent feasible. The areas shall be clearly marked in the field with temporary high visibility ESA fencing or other appropriate markers. ESA fencing/markers shall remain in place throughout the duration of project construction and will be regularly inspected and maintained.
 - c. All alkali mariposa lilies that cannot feasibly be avoided in final project design shall have bulbs collected prior to construction. Additionally, an Alkali Lily Transplantation Plan will be submitted to and approved by the Kern County Planning and Natural Resources Department, prior to ground disturbance and bulb collection. The plan will include the following:
 - i. Identify an area of occupied habitat either on-site or off-site to be preserved and where transplantation of bulbs will occur and methods for preservation, restoration, enhancement, and/or translocation.
 - ii. Indicate a replacement ratio and success standard of 1:1 for impacted individuals.
 - iii. Establish a monitoring program to ensure mitigation success.

- iv. Create adaptive management and remedial measures in the event that performance standards are not achieved.
- v. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.
- vi. Temporary ground disturbance associated with the transmission lines shall be recontoured to natural grade (if the grade was modified during the temporary disturbance activity) and revegetated with an application of a native seed mix prior to or during seasonal rains to promote passive restoration of the area to pre-project conditions. However, if invasive, non-native plant species were present, these species would not be restored. An area subjected to temporary ground disturbance means any area that is disturbed but will not be subjected to further disturbance as part of the project. This does not include areas already designated as urban/developed. Prior to seeding temporary ground disturbance areas, the qualified biologist will review the seeding palette to ensure that no seeding of invasive plant species, as identified in the most recent version of the California Invasive Plant Inventory for the region, will occur.

Special status plant species should be avoided whenever possible by delineation and observation of a 50-foot no-disturbance buffer from the outer edge of the special status plant population(s) or specific habitat type(s) required by special status plant species. If buffers cannot be maintained, then the project proponent shall consult with CDFW.”

M: The comment states that Mitigation Measure MM 4.4-8 should be revised to state that the nesting bird season occurs between February 1 and September 15 (rather than February 1 and August 31), the preconstruction survey window be reduced from 14 days to 7 days, that the non-disturbance area buffer for non-listed bird species be increased from 100 feet to 250 feet and that the non-disturbance area buffer for non-listed raptor species be increased from 300 feet to 500 feet.

Mitigation Measure MM 4.4-8 has been revised as follows to address the comment:

“MM 4.4-8: To mitigate for potential impacts on nesting birds, special-status birds, and birds protected under the MBTA and California Fish and Game Code during construction and decommissioning activities, the following measures shall be implemented:

1. During the avian nesting season (February 1–~~August 31~~ September 15), a qualified biologist shall conduct a preconstruction avian nesting survey no more than ~~714~~ days prior to initial vegetation clearing. Surveys need not be conducted for the entire Project site at one time; they may be phased so that surveys occur within ~~714~~ days prior to clearing or disturbance in specific areas of the site. The surveying biologist must be qualified to determine the species, status, and nesting stage without causing intrusive disturbance. At no time shall the qualified biologist be allowed to handle the nest or its eggs. The survey shall cover all reasonably potential nesting locations on and within 500 feet (152 meters) of the Project site, including ground nesting species, such as horned lark, nests in shrubs that could support nests, and suitable raptor nest sites such as nearby trees, windrows, and power poles. Access shall be granted on private offsite properties prior to conducting surveys on private land. If access is not obtainable, the biologist shall survey these areas from the nearest vantage point with use of spotting scopes or binoculars.

2. If construction is scheduled to occur during the non-nesting season (September 16– February 1), no preconstruction surveys or additional measures are required for non-listed avian species.

If active nests are found, a ~~250~~100-foot (~~30-meter~~) no-disturbance buffer shall be created around non-listed avian species' nests unless adjusted by the qualified biologist based on the needs and sensitivities of individual species, and a ~~500~~300-foot (~~91-meter~~) no-disturbance buffer shall be created around non-listed raptor species' nests (or a suitable distance otherwise determined in consultation with a qualified biologist). Any nest of a federally or state listed bird species shall require consultation with the appropriate agency (USFWS or the CDFW) to determine the appropriate buffer distance surrounding the nest to provide adequate nest protection. These buffers shall remain in effect until a qualified biologist has determined that the birds have fledged or the Project component(s) have been redesigned to avoid the area. All no-disturbance buffers shall be delineated in the field with visible flagging or fencing material.”

N: This comment includes editorial comments and suggestions pertaining to federally listed species. CDFW recommends consulting with USFWS regarding potential impacts to federally listed species, in particular the Desert Tortoise. Take under the federal Endangered Species Act (ESA) is more broadly defined than CESA; take under ESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. The comment states that consultation with the USFWS, in order to comply with ESA, is advised well in advance of any ground-disturbing activities.

The County acknowledges the need for early consultation for take of listed species; however, no USFWS consultation is anticipated since mitigation measures will ensure the avoidance of take and no take of federally listed species is expected prior to or during construction. If federally listed species are detected during pre-construction surveys, then consultation with USFWS will commence. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

O: This comment states that there are multiple streams within the project site and that the project's activities may be subject to CDFW's regulatory authority pursuant to Fish and Game Code section 1600 et seq. A total area of 2.11 acres and 7,401 linear feet of potential CDFW jurisdictional areas were delineated within the project site using CDFW delineation practices. Potential impacts from the Project are anticipated to be up to 1.3 acres in conjunction with improvements to road crossings non-wetland waters, within abandoned drainage ditches, potentially regulated by the RWQCB and/or CDFW pursuant to Section 1600 of the California Fish and Game Code.

As described on page 4.4-67 of the DEIR of the aquatic features observed on site, only the channels are anticipated to be jurisdictional (Waters of the State and CDFW jurisdictional areas). All or portions of these jurisdictional areas are located within the project footprint and could be directly impacted by the project. Impacts would be considered significant but would be reduced to less than significant levels through implementation of Mitigation Measures MM 4.10-1 and MM 4.4-18. If jurisdictional areas are to be impacted, the project proponent/operator will implement Mitigation Measure MM 4.4-19 to help avoid, minimize, reduce, and/or mitigate impacts on these potential jurisdictional areas. Prior to any impacts on jurisdictional Waters of the State, the project proponent/operator shall prepare and submit an application permit package to the RWQCB and obtain WDRs from the RWQCB pursuant to Porter-Cologne. Prior to any impacts on CDFW

jurisdictional areas, the project proponent/operator shall consult with the California Department of Fish and Wildlife on the need for a streambed alteration agreement pursuant to sections 1600-1616 of the CFGC. Compensatory mitigation for permanent impacts on jurisdictional areas shall be identified prior to disturbance of jurisdictional areas. No changes or modifications have been made to the DEIR in response to this comment.

- P:** The commenter states that the DEIR has a very broad analysis of cumulative impacts to biological resources and does not adequately evaluate impacts to specific resources. The commenter states an appropriate resources study area should be identified and mapped for each resource being analyzed and utilized for this analysis. They recommend that a cumulative impact analysis be conducted for all biological resources that will either be significantly or potentially significantly impacted by implementation of the Project. They also recommend that a cumulative impacts analysis be conducted for listed species and species of special concern.

The cumulative study area was defined through a description of existing conditions and cumulative projects. Existing conditions capture the effects of past and existing projects and are described in Section 4.4.2, Environmental Setting. Current and future projects are described in Figure 3-15, Cumulative Projects, Table 1-4, Summary of Significant and Unavoidable Project-Level and Cumulative Impacts of the Solar Facility, and Table 3-6, Cumulative Projects List. The DEIR considered the potential cumulative effects of the Project along with other current and reasonably foreseeable projects and found impacts to biological resources to be cumulatively considerable, significant and unavoidable, as discussed in Section 3.12, Cumulative Projects.

A detailed analysis of the cumulative impacts and means by which the mitigation measures would reduce the severity of impacts to the extent feasible is given at the end of each technical analysis presented in Chapter 4 of the DEIR. As noted in the Project impact analysis, the Project site does not provide habitat for most of the species listed in this comment. Therefore, a cumulative impact analysis for these species is not appropriate as per CEQA Guidelines, Section 15130, Discussion of Cumulative Impacts, "An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR." The cumulative impact analysis includes a discussion of the special-status wildlife species that currently utilize the Project site and surrounding vicinity and loss of foraging and nesting habitat. As specified in the CEQA Guidelines, Section 15130, Discussion of Cumulative Impacts, "The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone." Therefore, the DEIR presents an adequate cumulative impact discussion for biological resources. No changes or modifications have been made to the DEIR in response to this comment.

- Q:** This comment is noted for the record. Monitoring biologists will report special-status and natural communities detected to the CNDDDB as standard practice. No changes or modifications to the DEIR have been made in response to this comment. CDFW filing fees will be paid at the time of filing the Notice of Determination in accordance with Fish and Game Code Section 711.4.

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Comment Letter 2: Lahontan Regional Water Quality Control Board



Lahontan Regional Water Quality Control Board

January 5, 2024

File: Environmental Doc Review
Kern County

Alexis Brito
Kern County Planning Department
2700 "M" Street, Suite 100
Bakersfield, CA 93301
britoal@kerncounty.com

Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Enterprise Solar Storage Project, Kern County, State Clearinghouse Number 2023050214

The Lahontan Regional Water Quality Control Board (Water Board) staff received a Draft Environmental Impact Report (DEIR) for the above-referenced project (Project) on December 5, 2023. The DEIR was prepared by Kern County Planning Department (County) and submitted in compliance with provisions of the California Environmental Quality Act (CEQA). Water Board staff, acting as a responsible agency, is providing these comments to specify the scope and content of the environmental information germane to our statutory responsibilities pursuant to CEQA Guidelines, California Code of Regulations, title 14, section 15096. Based on our review of the DEIR, we recommend the following: (1) natural drainage channels and flow paths should be maintained through the Project site to ensure no net loss of function and value of waters of the State; (2) the Hydrologic Area be correctly identified along with the impacts to beneficial uses of waters impacted by the project; (3) Identify Project designs that will function as BMPs and post construction Stormwater and spill controls. Our comments on the Project are outlined below.

A

WATER BOARD'S AUTHORITY

All groundwater and surface waters are considered waters of the State. All waters of the State are protected under California law. State law assigns responsibility for protection of water quality in the Lahontan Region to the Lahontan Water Board. Some waters of the State are also waters of the United States. The Federal Clean Water Act (CWA) provides additional protection for those waters of the State that are also waters of the United States.

DR. AMY HORNE, ACTING CHAIR | MICHAEL R. PLAZIAK, PG, EXECUTIVE OFFICER

2501 Lake Tahoe Blvd., So. Lake Tahoe, CA 96150 | 15095 Amargosa Rd., Bldg 2 - Suite 210, Victorville CA 92394
www.waterboards.ca.gov/lahontan

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January 5, 2024

The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) contains policies that the Water Board uses with other laws and regulations to protect the quality of waters of the State within the Lahontan Region. The Basin Plan sets forth water quality standards for surface water and groundwater of the Region, which include designated beneficial uses as well as narrative and numerical objectives which must be maintained or attained to protect those uses. The Basin Plan can be accessed via the Water Board's web site at http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml.

A

GENERAL COMMENTS AND RECOMMENDATIONS

Based on our review of the information provided, we recommend that the following issues be considered in preparation of the DEIR.

1. In general, the installation of Photovoltaic (PV) grid systems for these types of projects has the potential to hydrologically modify natural drainage systems. Of particular concern is the collection of onsite storm water runoff and the concentrated discharge of that storm water to natural drainage channels. Design alternatives that are compatible with low impact development (LID) should be considered. LID components include: maintaining natural drainage paths and landscape features to slow and filter runoff and maximize groundwater recharge; managing runoff as close to the source as possible; and maintaining vegetated areas for storm water management and onsite infiltration. We recommend natural drainage channels and flow paths be maintained through the Project site to avoid no net loss of function and value of waters of the State as a result of Project implementation.
2. The DEIR should identify post-construction storm water management as a significant Project component, and a variety of BMPs that effectively treat post-construction storm water runoff, particularly maintaining native vegetation, should be evaluated as part of the Project. Based on our experience with other solar developments in the Mojave Desert, native vegetation is the most efficient and cost-effective post-construction BMP to treat storm water runoff. Because revegetating disturbed soils in the desert is particularly challenging due to low rainfall, extreme climatic conditions, and relatively slow growth rates, we encourage Project proponents to maintain and mow existing vegetation rather than clear and grub the entire site during construction. For those projects where native vegetation is maintained, we have observed that the need to implement temporary BMPs is greatly minimized and the costs associated with implementation and maintenance of post-construction BMPs is significantly reduced.
3. All surface waters are waters of the State. The DEIR will need to fully delineate the extent of waters of the State and evaluate potential impacts to these resources with respect to hydrology and water quality as a result of Project implementation.
4. Section 4.1.2 incorrectly identifies the Project as occurring within the Willow Springs Hydrologic Area. The Project site is located within the Chafee Hydrologic Area of the

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January 5, 2024

Antelope Hydrologic Unit (626.10), and groundwater beneath the Project site is contained within the Antelope Valley Groundwater Basin (6-44). The beneficial uses of these water resources are listed either by watershed (for surface waters) or by groundwater basin (for groundwater) in Chapter 2 of the Basin Plan. We request that the DEIR correct the Hydrologic Area and identify and list the beneficial uses of the water resources within the Project area and include an analysis of the Project's potential impacts to water quality and hydrology with respect to those beneficial uses.

E

5. The DEIR should identify the water quality standards that could potentially be violated by the Project and consider these standards when evaluating thresholds of significance for impacts. Water quality objectives and standards, both numerical and narrative, for all waters of the State within the Lahontan Region, including surface waters and groundwater, are outlined in Chapter 3 of the Basin Plan. Implementation of the proposed Project must comply with all applicable water quality standards and prohibitions, including provisions of the Basin Plan.

F

6. Equipment staging areas, excavated soil stockpiles, and hazardous materials (i.e. oils and fuels) should be sited in upland areas outside surface waters and adjacent flood plain areas. The DEIR should include a mitigation measure for the preparation and implementation of a comprehensive Spill Prevention and Response Plan that outlines the site-specific monitoring requirements and lists the BMPs necessary to prevent hazardous material spills or to contain and cleanup a hazardous material spill, should one occur.

G

7. Buffer areas should be identified and exclusion fencing used to protect water resources and to prevent unauthorized vehicles or equipment from entering or otherwise disturbing the surface waters. Equipment should use existing roadways to the extent feasible.

H

PERMITTING REQUIREMENTS FOR INDIVIDUAL PROJECTS

A number of activities implemented by individual projects in accordance with the General Plan amendment have the potential to impact waters of the State and, therefore, may require permits issued by either the State Water Resources Control Board (State Water Board) or Lahontan Water Board. The required permits may include the following.

8. Streambed alteration and/or discharge of fill material to a surface water may require a CWA, section 401 water quality certification for impacts to federal waters (waters of the U.S.), or dredge and fill waste discharge requirements for impacts to non-federal waters, both issued by the Lahontan Water Board.

I

9. Land disturbance of more than 1 acre may require a CWA, section 402(p) storm water permit, including a *National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit*, Water Quality Order (WQO)

Alexis Brito

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January 5, 2024

2022-0057-DWQ, obtained from the State Water Board, or individual storm water permit obtained from the Lahontan Water Board.

We request that the DEIR recognize the potential permits that may be required for the Project, as outlined above, and identify the specific activities that may trigger these permitting actions in the appropriate sections of the environmental document. Information regarding these permits, including application forms, can be downloaded from our web site at <http://www.waterboards.ca.gov/lahontan/>. Early consultation with Water Board staff regarding potential permitting is recommended.

Thank you for the opportunity to comment on the DEIR. If you have any questions regarding this letter, please contact me at (760) 243-2444 or andrew.robinson@waterboards.ca.gov. Please send all future correspondence regarding this Project to the Water Board's email address at Lahontan@waterboards.ca.gov and Project name in the subject line.



Andrew Robinson
Engineering Geologist

cc: State Clearinghouse (SCH 2023050214) (state.clearinghouse@opr.ca.gov)
CA Department of Fish and Wildlife (reg4assistant@wildlife.ca.gov)

Response to Comment Letter 2: Lahontan Regional Water Quality Control Board

- A:** The comment provides an introduction to the Lahontan Regional Water Quality Control Board's (RWQCB) role as responsible agency in review of the Draft EIR, summarizes the comments included below, and describes the RWQCB's jurisdiction and authority.

The comment is noted and individual responses to each of the summarized comments are provided below.

- B:** The comment states that the project has the potential to modify natural drainage systems and generate concentrated storm water runoff into natural drainage channels. The commenter recommends features such as maintenance of vegetated areas and natural drainage channels and flow paths to avoid impacts to waters of the State.

Project site preparation would include "maintaining natural vegetation where possible, using mow-and-roll vegetation clearance strategy" as described in Chapter 3, *Project Description* (page 3-58). Mitigation Measure MM 4.10-1 also requires the project proponent prepare a Stormwater Pollution Prevention Plan (SWPPP) designed to minimize runoff and specify best management practices (BMPs) to prevent all construction pollutants from contacting stormwater, with the intent of keeping sediment or any other pollutants from moving offsite and into receiving waters. BMPs listed in the mitigation measure include maintenance of natural vegetation, implementation of sediment controls, and other measures. Accordingly, as recommended by the commenter, the project would maintain vegetated areas and natural drainage channels.

Mitigation Measure MM 4.10-2 further requires the project proponent to prepare a hydrologic study and final drainage plan designed to evaluate and minimize potential increases in runoff from the project site. Required elements of the hydrologic study include a numerical stormwater model for the project site that evaluates existing and proposed (with project) drainage conditions during storm events ranging up to the 100-year event, an analysis of potential for erosion and sedimentation in light of modeled changes in stormwater flow across the project area, and engineering recommendations to offset increases in stormwater runoff that would result from the project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding onsite or offsite.

Additionally, Mitigation Measure MM 4.9-1 would require the project proponent provide a Hazardous Materials Business Plan that would delineate hazardous material and hazardous waste storage areas; describe proper handling, storage, transport, and disposal techniques; describe methods to be used to avoid spills and minimize impacts in the event of a spill; describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction; and establish public and agency notification procedures for spills and other emergencies, including fires. With implementation of this mitigation measure, the potential for the accidental release of hazardous materials would be reduced.

The lead agency has determined that implementation of Mitigation Measures MM 4.9-1, MM 4.10-1, and MM 4.4-10-2 would ensure that the project would not violate water quality standards or waste discharge requirements, or otherwise degrade water quality. No changes to the EIR are required to address the comment.

- C:** The comment states that a variety of BMPs that effectively treat post-construction storm water runoff, particularly maintaining native vegetation, should be evaluated as part of the project. The

comment further recommends maintenance and mowing of existing vegetation rather than clearing and grubbing the entire site during construction.

As noted above, and consistent with the comment, project site preparation would include “maintaining natural vegetation where possible, using mow-and-roll vegetation clearance strategy” as described in Chapter 3, *Project Description* (page 3-58). Mitigation Measure MM 4.10-1 requires the project proponent prepare a SWPPP designed to minimize runoff and specify BMPs, including maintenance of natural vegetation. Additionally, Mitigation Measure MM 4.4-17 requires natural vegetation be maintained onsite, through minimization of mowing, for protection of CBB. With implementation of Mitigation Measures MM 4.10-1 and 4.4-17, vegetation removal and mowing would be minimized as much as feasible. No changes to the EIR are required to address the comment.

- D:** The comment states that all surface waters are waters of the State and that the EIR is required to fully delineate the extent of waters of the State and evaluate potential impacts to these resources with respect to hydrology and water quality.

As described in Section 4.4, *Biological Resources* of the EIR (page 4.4-29), in March and April 2023, Jacobs conducted jurisdictional delineation surveys within the project site and results are documented in the *Aquatic Resource and Other Watercourse Delineation Report* included as Appendix E3 of the EIR. The EIR further describes (also on page 4.4-29) that the Porter-Cologne Act Water Quality Control Act (Porter-Cologne Act) defines Waters of the State broadly to include “any surface water or groundwater, including saline waters, within the boundaries of the state.” The project site does not contain wetland waters of the State subject to the jurisdiction of the RWQCB pursuant to the Porter-Cologne Act. The eight channels mapped within the project site are expected to be considered jurisdictional waters of the State, pursuant to the Porter-Cologne Act. As described in the DEIR, all or portions of these jurisdictional areas could be directly impacted by the project. Impacts would be considered significant, but would be reduced to less than significant levels through implementation of Mitigation Measures MM 4.10-1 and MM 4.4-18. If jurisdictional areas are to be impacted, the project proponent/operator will implement Mitigation Measure MM 4.4-19 to help avoid, minimize, reduce, and/or mitigate impacts on these potential jurisdictional areas. Prior to any impacts on jurisdictional Waters of the State, the project proponent/operator shall prepare and submit an application permit package to the RWQCB and obtain WDRs from the RWQCB pursuant to Porter-Cologne. Prior to any impacts on CDFW jurisdictional areas, the project proponent/operator shall consult with the California Department of Fish and Wildlife on the need for a streambed alteration agreement pursuant to sections 1600-1616 of the CFGC. Compensatory mitigation for permanent impacts on jurisdictional areas shall be identified prior to disturbance of jurisdictional areas. The permits (WDRs and SAA) will mandate BMPs, avoidance and protection measures, and/or compensatory mitigation ratios and other measures for impacts on jurisdictional areas. Compliance with permits issued for the project by the RWQCB and CDFW, and implementation of the measures required by the permits would offset the loss of jurisdictional Waters of the State and CDFW jurisdictional areas and mitigate the project’s impacts. No changes to the EIR are required to address the comment.

- E:** The comment states that Section 4.10.2 incorrectly describes the project site as occurring in the Willow Springs Hydrologic Unit and states the text should be revised to identify the project site within the Chafee Hydrologic Unit. The comment further recommends the Draft EIR list the beneficial uses of the water resources within the Project area and include an analysis of the Project’s

potential impacts to water quality and hydrology with respect to those beneficial uses.

The text of Section 4.10-2 has been revised accordingly:

Section 4.10, Hydrology and Water Quality, Page 4.10-1

Antelope Hydrologic Unit

The Antelope Hydrologic Unit is part of the Lahontan Regional Water Quality Control Board (RWQCB). The Antelope Hydrologic Unit includes portions of Los Angeles, Kern, and San Bernardino Counties and corresponds to the Antelope Valley basin, which is a closed topographic basin with an area of about 2,400 square miles. Under the California Department of Water Resources mapping system used in the Lahontan Basin Plan, the Antelope Hydrologic Unit includes eight Hydrologic Areas: Chafee, Gloster, Willow Springs, Neenach, Lancaster, North Muroc, Buttes, and Rock Creek (Lahontan RWQCB, 2021). The project is located in the ~~Willow Springs~~ Chafee Hydrologic Area or sub-watershed. In the Antelope Valley, water flows east towards Rosamond Lake. Beneficial uses of the Chafee Hydrologic Area, as described in the Lahontan Region Water Quality Control Plan (Lahontan RWQCB, 2016), include municipal, agricultural, groundwater, recreational, commercial and sports fishing, warm freshwater habitat, cold freshwater habitat, and wildlife habitat uses.

The Draft EIR already analyzes potential impacts to water quality and hydrology in Section 4.10. The project site is subject to the applicable requirements of the Basin Plan administered by the RWQCB in accordance with the Porter-Cologne Water Quality Control Act. As discussed in Section 4.10, the project would include required BMPs and drainage control requirements that would be consistent with the Basin Plan. Specifically, the project would be required to implement a SWPPP during construction. Per Mitigation Measure MM 4.10-1, the SWPPP would include BMPs designed to prevent the occurrence of soil erosion and discharge of other construction-related pollutants that could contaminate water quality, and would be applicable to all areas of the project, including the solar fields and the generation tie (gen-tie) line. In addition, prior to the commencement of construction activities, the project proponent would be required to adhere to the requirements of the Kern County Grading Code. This includes implementation of various measures designed to prevent erosion and control drainage onsite, thereby further preventing the potential sedimentation and subsequent degradation of stormwater. Mitigation Measure MM 4.10-2 also would require the preparation of a hydrologic study and drainage plan per the Kern County Development Standards and the Kern County Code of Building Regulations prior to issuance of a grading permit. Based on the findings of the hydrologic study, the drainage plan would recommend an onsite design that ensures facilities are located in such a way to lessen their impact on drainage patterns and erosion. Designing the site grading and access roads in compliance with County standards and as required by MM 4.10-2 would prevent substantial alterations to drainage patterns and erosion within the project site. Impervious surfaces from construction of access roads, photovoltaic module foundations, substations, and other improvements would be relatively limited compared to the overall perviousness of the remaining approximately 2,230-acre project site plus 300 acres of laydown areas. Finally, Mitigation Measure MM 4.9-1 would require the project proponent to provide a Hazardous Materials Business Plan that would delineate hazardous material and hazardous waste storage areas; describe proper handling, storage, transport, and disposal techniques; describe methods to be used to avoid spills and minimize impacts in the event of a spill;

describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction; and establish public and agency notification procedures for spills and other emergencies, including fires. With implementation of this mitigation measure, the potential for the accidental release of hazardous materials would be reduced. Therefore, with implementation of Mitigation Measures MM 4.9-1, MM 4.10-1, and MM 4.10-2, impacts to water quality would be less than significant.

- F:** The comment states that the project must comply with all applicable water quality standards and prohibitions, including provisions of the Basin Plan.

Impact 4.10-8 in Section 4.10, *Hydrology and Water Quality* on page 4.10-25 of the Draft EIR describes that the project site is located within the Lahontan RWQCB and is subject to the applicable requirements of the Basin Plan administered by the RWQCB in accordance with the Porter-Cologne Water Quality Control Act, and that the project would include required BMPs and drainage control requirements that would be consistent with the Basin Plan. Please also see the response to comments “B” and “E,” above. The lead agency has determined that implementation of Mitigation Measures MM 4.9-1, MM 4.10-1, and 4-10-2 would ensure that the project would not violate water quality standards or waste discharge requirements, or otherwise degrade water quality. No changes to the EIR are required to address the comment.

- G:** The comment states that equipment staging areas, excavated soil stockpiles, and hazardous materials (i.e. oils and fuels) should be sited in upland areas outside surface waters and adjacent flood plain areas and the comment further recommends the Draft EIR include a mitigation measure for the preparation and implementation of a comprehensive Spill Prevention and Response Plan that outlines the site-specific monitoring requirements and lists the BMPs necessary to prevent hazardous material spills or to contain and cleanup a hazardous material spill, should one occur.

The temporary construction staging and equipment storage yard on approximately 10 acres (Conditional Use Permit No. 65, Map 196) is located in an upland area. Mitigation Measure MM 4.4-3(j) requires that fueling of equipment take place within existing roads or disturbed areas. No refueling within or adjacent to drainages (within 150 feet) is permitted. As discussed in Section 4.9, *Hazards and Hazardous Materials* on page 4.9-29 of the Draft EIR, a Spill Prevention Control and Countermeasure (SPCC) Plan will be developed for both construction activities and operations following construction pursuant to the Clean Water Act (CWA) including the Oil Pollution Prevention regulation contained in 40 CFR 112. No changes to the EIR are required to address the comment.

- H:** The comment states that buffer areas should be identified and exclusion fencing used to protect water resources and to prevent unauthorized vehicles or equipment from entering or otherwise disturbing surface waters and that equipment should use existing roadways to the extent feasible.

Mitigation Measure 4.4-3(c) ensures that access roads will not extend beyond the planned impact area, which area includes all previously disturbed lands and any location within the project fenceline not delineated for avoidance of sensitive biological resources, which include surface waters. Mitigation Measure 4.4-3(d) requires the project proponent/operator minimize the areas of disturbance. Parking areas, new roads, staging, storage, excavation, and disposal site locations must be confined to the smallest areas possible. These areas must be demarcated and disturbance activities, vehicles, and equipment must be confined to these areas. No changes to the EIR are required to address the comment.

- I:** The comment states that streambed alteration and/or discharge of fill material to a surface water may require a CWA, section 401 water quality certification for impacts to federal waters (waters of the U.S.); and land disturbance of more than 1 acre may require a CWA, Section 402(p) storm water permit, including a National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit, Water Quality Order.

Section 3.11 in Chapter 3, *Project Description* on page 3-64 of the Draft EIR identifies the following entitlements may be required:

- Waste Discharge Requirements
- Regional Water Quality Certification (401 Permit)
- National Pollutant Discharge Elimination System Construction General Permit

No changes to the EIR are required to address the comment.

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Comment Letter 3: California Department of Transportation, District 9

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

CAVIN NEWSOM, Governor

DEPARTMENT OF TRANSPORTATION

DISTRICT 9
500 SOUTH MAIN STREET
BISHOP, CA 93514
PHONE (760) 872-0785
FAX (760) 872-0678
TTY 711
www.dot.ca.gov



Making Conservation
a California Way of Life.

January 17, 2024

Ms. Alexis Brito
Planner I Kern County Planning and Natural Resources
2700 "M" Street, Suite 100
Bakersfield, CA 93301

Enterprise Solar DEIR

Dear Ms. Brito:

Thank you for giving the California Department of Transportation (Caltrans) District 9 the opportunity to comment on the Draft Environmental Impact Report (DEIR) Enterprise Solar Project. We offer the following comments:

- In our June 5, 2023, comment letter for the NOP DEIR, we'd given direction that a Cumulative Impact analysis be completed, regarding transportation impacts.
 - Although you do include a Cumulative impacts section regarding transportation, we would like to see a more in-depth cumulative impacts analysis for construction impacts regarding future solar projects in the area, using trip generation and/or VMT analysis.
 - For example, in the DEIR, Figure 3-5 in Section 4.1-3, you show and state that "there are 30,000 acres of existing large-scale commercial solar projects in the East Kern County dessert areas."
 - This is a large amount of solar coverage for the surrounding area with minimal State Routes and infrastructure to navigate construction circulation with competing projects. Please analyze the projects that you show on Figure 3-17, "Surrounding Solar Projects" for the Cumulative Impacts section.
- In the Traffic Analysis section, 4.15.5, you have the following statement: "Construction trips typically are not analyzed in a VMT because they are temporary and would not impact overall per capita VMT region."
 - This statement does not consider cumulative impact considerations regarding future solar project's impacts during construction. Regardless that an impact is temporary or not, it would still be an impact. Please analyze cumulative impacts in a more quantitative and in-depth manner, using trip generation and/or VMT analysis.
- In your Avoidance, Minimization and/or Mitigation Measures, please describe any mitigation, perhaps facility improvements, that you would provide if the project were to have any potential transportation impacts. With limited access points to the highway, there must be consideration towards temporary

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"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Mr. Mark Tolentino
January 17, 2024
Page 2

construction impacts to possibly mitigate potential impacts such forth on the State's transportation facility.

D cont.

The Caltrans Highway Design Manual is located at:
<https://dot.ca.gov/programs/design/manual-highway-design-manual-hdm>

Details regarding state highway Encroachment Permits may be found in the **Encroachment Permit Manual** at: <https://dot.ca.gov/programs/traffic-operations/ep/ep-manual>

E

The permit application may be found at:
<https://dot.ca.gov/programs/traffic-operations/ep/applications>

For permitting details, you may contact Kurt Weiermann District 9 Permits Engineer, at (760) 872-0781.

We value our cooperative working relationship with the Kern County Planning and Natural Resources Department regarding development impacts to the state transportation system. For any questions, feel free to contact Rick Franz at (760) 938-2288 or at rick.franz@dot.ca.gov.

F

Sincerely,

Maggie Ritter

Maggie Ritter, Senior Transportation Planner
Transportation Planning Branch, Supervisor
Division of Planning & Environmental
Caltrans, District 9
500 S Main St.
Bishop, CA 93514
Cell: (442)359-8456

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability".

Response to Comment Letter 3: California Department of Transportation, District 9

- A:** The comment provides an introduction to the California Department of Transportation (Caltrans) District 9 and does not require a response.
- B:** The comment states that the cumulative analysis in Section 4.15, *Transportation*, include an analysis of construction impacts for future solar projects using trip generation and/or vehicle miles traveled (VMT) analysis. The comment further requests the Draft EIR analyze the projects shown on Figure 3-17, “Surrounding Solar Projects” for the Cumulative Impacts section.

A list and description of past, present, and reasonably foreseeable projects near the project can be found in Table 3-6, *Cumulative Projects List*, and these projects are displayed on Figure 3-15, *Cumulative Projects*. Each of these projects was considered during the analysis of cumulative impacts to transportation resources presented in Section 4.15.5. Reasonably foreseeable projects in the vicinity of the project would have limited overlap in construction schedules and peak construction schedules would not coincide with the project. Further, local roadways in the vicinity of the project site generally are free flowing, with few if any existing delays. While construction traffic would be temporary and would not impact local free flowing roadway conditions, the project also includes Mitigation Measures MM 4.15-1 and 4.15-2, which require, among other things, the development of a construction traffic control plan, and which would reduce potential impacts to intersections, including the intersection at SR-14 and Purdy Avenue, resulting from temporary construction traffic. Traffic due to operations of nearby solar projects is minimal, as solar projects require very few or no full-time staff. For example, the project (which is approximately 2,300 acres in size) would require only six full-time operational staff. Because of the different construction schedules, the distances between projects, and the negligible traffic generated during operations of the projects that are currently built, project construction combined with other past, present, or reasonably foreseeable future projects would not have a cumulative impact on transportation resources. No changes to the Draft EIR are required to address the comment.

- C:** The comment states that the statement in the Draft EIR that “Construction trips typically are not analyzed in a VMT because they are temporary and would not impact overall per capita VMT region,” does not account for cumulative impacts of construction and the comment requests the Draft EIR analyze cumulative impacts in a more quantitative and in-depth manner, using trip generation and/or VMT analysis.

Please see the response to Comment “B” above. Additionally, the Draft EIR provides a quantitative analysis of vehicle trips associated with construction, providing that construction-related activity associated with the proposed project is forecast to generate (during the peak construction phase overlap) up to approximately 2,362 passenger car equivalent (PCE) vehicle trips, up to an estimated 542 of which would occur during the AM and PM peak hours. As noted, local roadways in the vicinity of the project site generally are free flowing, with few if any existing delays, and the project includes Measures MM 4.15-1 and 4.15-2, which require, among other things, a construction traffic control plan addressing the timing of delivery of heavy equipment during off-peak hours and limiting worker trips during peak hours. Reasonably foreseeable projects in the vicinity of the project would have limited overlap in construction schedules and peak construction schedules would not coincide with the project, such that cumulative construction impacts on transportation resources are less than significant. The Draft EIR’s cumulative analysis considers these factors in

determining that impacts would be less than significant. No changes to the Draft EIR are required to address the comment.

- D:** The comment requests the Draft EIR include any mitigation measures, such as facility improvements, to mitigate temporary construction impacts.

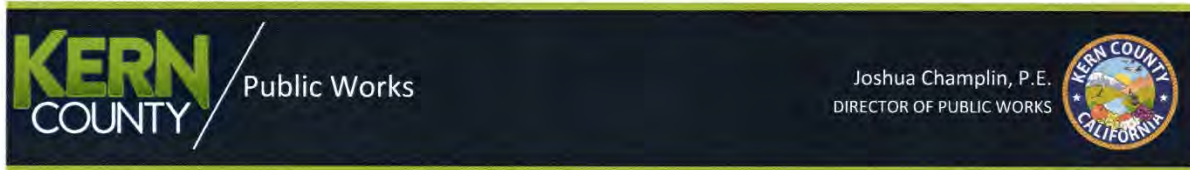
As discussed on page 4.15-20 of the Draft EIR, project construction would result in an estimated 542 passenger car equivalent vehicle trips during the AM and PM peak hours, and construction traffic would be temporary and would not result in long-term or permanent changes to local roadway conditions. Local roadways in the vicinity of the project site generally are free flowing, with few if any existing delays. Temporary construction traffic would not significantly alter current road conditions.

Mitigation Measure MM 4.15-1 requires the project proponent prepare a Traffic Construction Control Plan which would be submitted to Kern County Public Works Department-Development and Caltrans District 9 for approval. The Construction Traffic Control Plan must be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and is required to include measures to minimize impacts to County and State roads. No changes to the Draft EIR are required to address the comment.

- E:** The commenter provides informative links regarding the Caltrans Highway Design Manual as well as permit details and applications. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not required.
- F:** The commenter concludes by providing thanks for being allowed to comment on the Draft EIR for the proposed project, and request that any questions regarding the letter as well a future correspondence regarding the project be provided to the identified contacts. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not required.

Local Agencies

Comment Letter 4: Kern County Public Works Department/Development



Office Memorandum

To: Lorelei Oviatt, Director
 Planning and Natural Resources Department
 Attn: Alexis Brito, Planner I

December 7, 2023

From: Cesar Ayon, Engineering Manager *CA*
 Public Works Department/Development

Subject: 7-8.3.b Draft Supplemental Environmental Impact Report for
 Enterprise Solar Storage Project by Enterprise Solar Storage, LLC (PP23401)
 (Located at directly south of Mojave)

Development Review Section

This Section has reviewed the subject project and has no comment.

Thank you for the opportunity to comment on this project. If you have any questions or comments, please contact Rodd Parke of this Section at (661) 862-8848.

Floodplain Management Section

This Section has reviewed the subject project and has the recommend the following:

The runoff of storm water from the site will be increased due to the increase in impervious surface generated by the proposed development. A

Therefore, this section recommends the following be included as Conditions of Approval for this project:

The applicant shall provide a plan for the disposal of drainage waters originating on site and from adjacent road right-of-ways (if required), subject to approval of the Public Works Department, per the Kern County Development Standards. B

Thank you for the opportunity to comment on this project. If you have any questions or comments, please contact Brian Blaise of this Section at (661) 862-5098.

Sewer and Water Section

This Section has reviewed the subject project and has no comment.

Thank you for the opportunity to comment on this project. If you have any questions or comments, please contact Kyle Perez of this Section at (661) 862-8852.



2700 M Street, #400, Bakersfield, CA. 93301 | 661.862.5100 | www.KernPublicWorks.com

CSA Section

This Section has reviewed the subject project and has no comment.

Thank you for the opportunity to comment on this project. If you have any questions or comments, please contact Stephan Chavira of this Section at (661) 862-5115.

Response to Comment Letter 4: Kern County Public Works Department/Development

- A:** The commenter notes that the project site is subject to flooding and that stormwater runoff from the site would increase due to the increase in impervious surfaces generated by the project. The Draft EIR acknowledges that project implementation would increase the amount of impervious surfaces on-site, which may result in a potential increase in stormwater runoff. However, the majority of the project site would remain pervious and would therefore continue to absorb precipitation. Such characteristics were evaluated in the Draft EIR pursuant to CEQA, as applicable; refer to Section 4.10, *Hydrology and Water Quality*, of the Draft EIR. The comments provided have been noted for the record, and no revisions to the Draft EIR are required.
- B:** The commenter requests that the project proponent submit a plan for the disposal of drainage waters originating on-site and from adjacent road rights-of-way, as well as incorporate flood hazard requirements into the project design per County standards, and that such actions be made Conditions of Approval for the project.

As analyzed in the Draft EIR, the site engineering and design plans for the project would conform to requirements of the Kern County Code of Building Regulations, the Kern County Development Standards, and the Floodplain Management Ordinance. Furthermore, site drainage plans would be required to comply with Division Four of the Kern County Development Standards, which provide guidelines including site development standards and mitigation, flood control requirements, erosion control, and on-site drainage flow requirements. Project conformance with such existing regulations pertaining to erosion and site drainage would neither alter the course of a stream or river nor result in substantial erosion on-site or off-site. As described in Section 4.10 of the Draft EIR, implementation of mitigation measures MM 4.10-1 which would require preparation and implementation of a stormwater pollution prevention plan, and MM 4.10-2, which would require preparation and implementation of a final hydrologic study and drainage plan, would reduce project impacts in this regard to less than significant and would be incorporated as Conditions of Approval for the project. The comments provided have been noted for the record, and revisions to the Draft EIR are not necessary.

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Comment Letter 5: Kern County Fire Department

**Office of the Fire Marshal
Kern County Fire Department
Fire Prevention Unit**



2820 M St. • Bakersfield, CA 93301 • www.kerncountyfire.org
Telephone 661-391-3310 • FAX 661-636-0466/67 • TTY Relay 800-735-2929

January 9, 2024

Kern County Planning and Natural Resources Department
2800 M St., Bakersfield, CA 93301
Attn.: Alexis Brito

Re: Kern County Fire Department Comments Regarding Planning Department Project

To Whom It May Concern,

The Kern County Fire Department (KCFD), as the local fire authority, has received a request for comments regarding [Draft Environmental Impact Report-Enterprise Solar Storage Project](#). Upon initial review, it has been determined that all ground mounted solar array projects over 1MW will require Fire Department plan review prior to construction and meet requirements set forth in KCFD Solar Panel Standard. Solar array projects over 20MW will require special fee calculation from KCFD prior to permit issuance.

A

All Battery Energy Storage Systems must be applied for directly with KCFD for separate permitting and pre-construction approval. All proposed batteries must be UL9540A 2019 4th Edition tested for large scale burns to determine adequate design and mitigation measures. Additionally, the 24,000 gallon fire water tank and fire alarm annunciator panel (Incident Command Post) must be located a minimum of 300' upwind from the nearest battery enclosure. Site emergency response access for the storage yards is preferred to be placed upwind of battery enclosures based on the prevailing winds in the area of construction.

B

A more detailed review and project comments will be conducted when the building permit is obtained, and plans are submitted to KCFD.

C

Please feel free to call our Fire Prevention Office at (661) 391-3310 with any questions.

Respectfully,
Regina Arriaga
Assistant Fire Marshal
Kern County Fire Department

Proudly Serving the Cities of Arvin, Bakersfield, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, Wasco, and all Unincorporated Areas of Kern County

Response to Comment Letter 5: Kern County Fire Department

- A:** The commenter describes the Kern County Fire Department's (KCFD) local regulatory authority to enforce state and local codes related to fire protection and health and safety. The commenter states that the project will be required to meet standards set forth by the KCFD and to submit plans and obtain a permit from the KCFD for installation of a battery energy storage system. Additionally, the commenter indicates that the project would be subject to payment of applicable fees prior to permit issuance. This comment does not raise a substantive issue on the content of the Draft EIR. The comments provided have been noted for the record, and no revisions to the Draft EIR are necessary.
- B:** The County acknowledges the comments provided; such requirements as stated will be made Conditions of Approval for the project. The Draft EIR contemplates that the project would include one or more water storage tanks for KCFD use. For the sake of clarity, the Draft EIR has been revised to reflect KCFD's request that the project include two water tanks for its use:

Chapter 3, Project Description, Section 3.9.1, Operational Water Usage, Page 3-61

During operations, the water used will be provided from the Mojave Public Utility District or existing or new on-site water wells. Water would be required for panel washing, equipment washing, non-sanitary uses, and other miscellaneous water uses, such as landscaping. During project operations, solar panel washing is expected to occur one to four times per year based on site conditions, such as usual weather occurrences, wild/forest fires, local air pollutants, and other similar conditions. Panel washing would require 15 days to complete per wash cycle. Water consumption is expected to be around 0.28 gallon per square yard of panel, based on other similar operations. Given a 600-MW facility, with four cycles per year, the annual water usage is expected to be up to approximately 25 acre-feet of water. This amount includes the water necessary for the operations, fire suppression, and site maintenance. On-site water resources would also include an aboveground 10,000-gallon fire tank, which would be placed at each site entrance ~~the water tank may be provided for fire department use and shall be located a minimum of 300 feet upwind of the nearest BESS enclosure.~~ The footprint of the tanks are approximately 20 feet by 20 feet. To comply with Kern County Fire Department BESS requirements, the project would also include an aboveground 30,000-gallon fire tank for fire department use and would be located a minimum of 300 feet upwind of the nearest BESS enclosure.

Because this modification adds specificity to the Draft EIR's identification of the potential for more than one water tank, it does not reflect a new or substantially increased significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

- C:** The commenter states that the KCFD will provide more detailed review comments at the time of KCFD plan review and building permit issuance.

This comment does not raise a substantive issue on the content of the Draft EIR. The comments provided have been noted for the record, revisions to the Draft EIR are not necessary.

Comment Letter 6: Mojave Air and Space Port



January 8, 2024

Lorelei H Oviatt, AICP
Director
Kern County Planning and Natural Resources
2700 M Street Ste 100
Bakersfield, CA 93301

RE: Response to DEIR for the Enterprise Solar Storage Project (SCH#2023050214)

Lorelei,

In response to the DEIR for Enterprise Solar Storage Project, the Mojave Air & Space Port/Rutan Field does not have any comments related to this project. However, we request that the Project's Management work closely with MASP to ensure any changes to the project, or portions of the project that may impact the Airport, are coordinated with MASP. The following are the points of contact for the Air & Space Port:

A

Floyd VanWey
Director of Facilities
(661) 221-3647
floyd@mojaveairport.com

All aerospace and operational issues like cranes, obstruction lighting, etc. please contact:

Arielle Sewell
Director of Operations
(661) 221-2192
arielle@mojaveairport.com

Thank you.



Timothy J. Reid, A.A.E.
General Manager/CEO
(661) 754-4206
tim@mojaveairport.com

Mojave Air & Space Port * 1434 Flightline, Mojave, CA 93501 * 661-824-2433

Response to Comment Letter 6: Mojave Air and Space Port

A: The comment states that the Mojave Air and Space Port/Rutan Field (MASP) does not have any comments related to this project and requests that the project proponent work closely with MASP to ensure any changes to the project, or portions of the project that may impact the Airport, are coordinated with MASP

The comments provided have been noted for the record, revisions to the Draft EIR are not necessary.

Comment Letter 7: Southern California Gas



Transmission Technical
Services Department

9400 Oakdale Ave
Chatsworth, CA 91311
SC9314

January 18, 2024

Alexis Brito
Kern County
Britoal@kerncounty.com

Subject: Enterprise Solar Storage Project

DCF: 0012-24NC

The Transmission Department of SoCalGas does not operate any facilities within your proposed improvement. However, the Distribution Department of SoCalGas may maintain and operate facilities within your project scope.

To assure no conflict with the Distribution's pipeline system, please e-mail them at:

NorthwestDistributionUtilityRequest@semprautilities.com

Best Regards,
Nerses Papazyan
SoCalGas Transmission Technical Services
SoCalGasTransmissionUtilityRequest@semprautilities.com

A

Response to Comment Letter 7: Southern California Gas

- A:** The comment states that the Transmission Department of SoCalGas does not operate and facilities with the Project site. The comment states that the Distribution Department of SoCalGas may have facilities and recommends contacting SoCalGas to avoid potential conflicts with the project. This comment does not raise a substantive issue on the content of the Draft EIR analysis and does not directly apply to the CEQA process. Therefore, the comment has been noted for the record and no changes to the document have been made or are required.

Interested Parties

Comment Letter 8: Western States Regional Council of Carpenters (WSRCC)

P: (626) 314-3821
 F: (626) 389-5414
 E: info@mitchtsailaw.com



139 South Hudson Avenue
 Suite 200
 Pasadena, California 91101

VIA E-MAIL

January 4, 2024

Alexis Brito, Planner
 Kern County Planning and Natural Resources Department
 2700 M. St., Ste. 100
 Bakersfield, CA 93301
 Em: BritoAL@kerncounty.com

RE: Enterprise Solar Project Draft Environmental Impact Report

Dear Alexis Brito and Kern County,

On behalf of the Western States Regional Council of Carpenters (“**Western Carpenters**” or “**WSRCC**”), my Office is submitting these comments to Kern County (“**County**”) regarding the Draft Environmental Impact Report (“**DEIR**”) for the Enterprise Solar Project (“**Project**”).

The Project involves the construction and operation of a solar facility and associated infrastructure, including telecommunications towers and internal roads, to generate up to 270 megawatts (MW) of renewable electrical energy with a Battery Energy Storage System capable of storing approximately 270 MW, or 1,080 megawatt-hours (MWh) of energy, within approximately 25 acres of the 1,343.2 acres project site.

The Western Carpenters is a labor union representing about 90,000 union carpenters in 12 states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects. Individual members of the Western Carpenters live, work, and recreate in the County and surrounding communities and would be directly affected by the Project’s environmental impacts.

The Western Carpenters expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-

A

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1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

The Western Carpenters incorporates by reference all comments raising issues regarding the Environmental Impact Report (EIR) submitted prior to certification of the EIR for the Project. See *Citizens for Clean Energy v. City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project’s environmental documentation may assert any issue timely raised by other parties).

A cont.

I. THE COUNTY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY’S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The County should require the Project to be built using a local workers who have graduated from a Joint Labor-Management Apprenticeship Program approved by the State of California, have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state-approved apprenticeship training program, or who are registered apprentices in a state-approved apprenticeship training program.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

B

[A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

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[L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California’s workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.¹

Furthermore, workforce policies have significant environmental benefits given that they improve an area’s jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the “[u]se of a local state-certified apprenticeship program” can result in air pollutant reductions.²

B cont.

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.³

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.⁴ Some municipalities have even tied local hire and

¹ California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, available at <https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf>.

² South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, available at <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10>.

³ California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, available at <https://cprroundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf>.

⁴ Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association

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other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city’s First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

B cont.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 (“AB2011”). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements. The County should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

II. THE COUNTY SHOULD IMPOSE TRAINING REQUIREMENTS FOR THE PROJECT’S CONSTRUCTION ACTIVITIES TO PREVENT COMMUNITY SPREAD OF COVID-19 AND OTHER INFECTIOUS DISEASES

C

Construction work has been defined as a Lower to High-risk activity for COVID-19 spread by the Occupational Safety and Health Administration. Recently, several construction sites have been identified as sources of community spread of COVID-19.⁵

72 (4), 475-490, 482, available at <http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf>.

⁵ Santa Clara County Public Health (June 12, 2020) COVID-19 CASES AT CONSTRUCTION SITES HIGHLIGHT NEED FOR CONTINUED VIGILANCE IN SECTORS THAT HAVE REOPENED, available at <https://www.sccgov.org/sites/covid19/Pages/press-release-06-12-2020-cases-at-construction-sites.aspx>.

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The Western Carpenters recommend that the County adopt additional requirements to mitigate public health risks from the Project's construction activities. The Western Carpenters requests that the County require safe on-site construction work practices as well as training and certification for any construction workers on the Project Site.

In particular, based upon the Western Carpenters' experience with safe construction site work practices, the Western Carpenters recommends that the County require that while construction activities are being conducted at the Project Site:

Construction Site Design:

- The Project Site will be limited to two controlled entry points.
- Entry points will have temperature screening technicians taking temperature readings when the entry point is open.
- The Temperature Screening Site Plan shows details regarding access to the Project Site and Project Site logistics for conducting temperature screening.
- A 48-hour advance notice will be provided to all trades prior to the first day of temperature screening.
- The perimeter fence directly adjacent to the entry points will be clearly marked indicating the appropriate 6-foot social distancing position for when you approach the screening area. Please reference the Apex temperature screening site map for additional details.
- There will be clear signage posted at the project site directing you through temperature screening.
- Provide hand washing stations throughout the construction site.

Testing Procedures:

- The temperature screening being used are non-contact devices.
- Temperature readings will not be recorded.

C cont.

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- Personnel will be screened upon entering the testing center and should only take 1-2 seconds per individual.
- Hard hats, head coverings, sweat, dirt, sunscreen or any other cosmetics must be removed on the forehead before temperature screening.
- Anyone who refuses to submit to a temperature screening or does not answer the health screening questions will be refused access to the Project Site.
- Screening will be performed at both entrances from 5:30 am to 7:30 am.; main gate [ZONE 1] and personnel gate [ZONE 2]
- After 7:30 am only the main gate entrance [ZONE 1] will continue to be used for temperature testing for anybody gaining entry to the project site such as returning personnel, deliveries, and visitors.
- If the digital thermometer displays a temperature reading above 100.0 degrees Fahrenheit, a second reading will be taken to verify an accurate reading.
- If the second reading confirms an elevated temperature, DHS will instruct the individual that he/she will not be allowed to enter the Project Site. DHS will also instruct the individual to promptly notify his/her supervisor and his/her human resources (HR) representative and provide them with a copy of Annex A.

C cont.

Planning

- Require the development of an Infectious Disease Preparedness and Response Plan that will include basic infection prevention measures (requiring the use of personal protection equipment), policies and procedures for prompt identification and isolation of sick individuals, social distancing (prohibiting gatherings of no more than 10 people including all-hands meetings and all-hands lunches)

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communication and training and workplace controls that meet standards that may be promulgated by the Center for Disease Control, Occupational Safety and Health Administration, Cal/OSHA, California Department of Public Health or applicable local public health agencies.⁶

The United Brotherhood of Carpenters and Carpenters International Training Fund has developed COVID-19 Training and Certification to ensure that Carpenter union members and apprentices conduct safe work practices. The Agency should require that all construction workers undergo COVID-19 Training and Certification before being allowed to conduct construction activities at the Project Site.

C cont.

The Western Carpenters has also developed a rigorous Infection Control Risk Assessment (“ICRA”) training program to ensure it delivers a workforce that understands how to identify and control infection risks by implementing protocols to protect themselves and all others during renovation and construction projects in healthcare environments.⁷

ICRA protocols are intended to contain pathogens, control airflow, and protect patients during the construction, maintenance and renovation of healthcare facilities. ICRA protocols prevent cross contamination, minimizing the risk of secondary infections in patients at hospital facilities.

The County should require the Project to be built using a workforce trained in ICRA protocols.

III. THE COUNTY MUST REVISE THE DEIR FOR THE PROJECT

CEQA is a California statute designed to inform decision makers and the public about the potential, significant environmental effects of a project. 14 California Code of

D

⁶ See also The Center for Construction Research and Training, North America’s Building Trades Unions (April 27 2020) NABTU and CPWR COVID-19 Standards for U.S. Construction Sites, available at https://www.cpwr.com/sites/default/files/NABTU_CPWR_Standards_COVID-19.pdf; Los Angeles County Department of Public Works (2020) Guidelines for Construction Sites During COVID-19 Pandemic, available at https://dpw.lacounty.gov/building-and-safety/docs/pw_guidelines-construction-sites.pdf.

⁷ For details concerning Southwest Carpenters’ ICRA training program, see <https://icrahealthcare.com/>.

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Regulations (“CEQA Guidelines”) § 15002(a)(1).⁸ At its core, “[i]ts purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made.” *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.

To achieve this purpose, CEQA mandates preparation of an Environmental Impact Report (“EIR”) for projects so that the foreseeable impacts of pursuing the project can be understood and weighed. *Communities for a Better Environment v. Richmond* (2010) 184 Cal. App. 4th 70, 80. The EIR requirement “is the heart of CEQA.” CEQA Guidelines, § 15003(a).

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. The EIR’s function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Communities for a Better Environment v. Richmond* (2010) 184 Cal. App. 4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 449–450).

Section 15088.5(a) of the CEQA Guidelines provides that an EIR must be recirculated whenever there is disclosure of significant new information. Significant new information includes: (1) disclosure of a new significant environmental impact resulting from the project or from a new proposed mitigation measure; (2) disclosure of a substantial increase in the severity of an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance; and (3) disclosure of a feasible project alternative or mitigation measure considerably different from others previously analyzed which would clearly lessen the significant

D cont.

E

⁸ The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 *et seq.*, are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. (Cal. Pub. Res. Code § 21083.) The CEQA Guidelines are given “great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous.” *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal. 4th 204, 217.

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environmental impacts of the project which the project proponents decline to adopt.
Id.

Additionally, an EIR must be recirculated when it is so fundamentally inadequate and conclusory in nature that meaningful public review and comment is precluded. *Id.* [citing *Mountain Lion Coalition v. Fish & Game Com.* (1989) 214 Cal.App.3d 1043].

Here, as discussed both previously and as reiterated below, the DEIR is legally flawed in various parts because it fails to substantiate all of its conclusions to allow meaningful public review and comment, fails to provide adequate mitigation measures, and fails to fully assess all pertinent environmental factors. Accordingly, this comment letter discloses significant new information, necessitating revision and recirculation of the DEIR.

E cont.

A. The DEIR Fails to Adequately Mitigate The Project’s Biological Resource Impacts

If a project has a significant effect on the environment, an agency may approve the project only upon finding that it has “eliminated or substantially lessened all significant effects on the environment where feasible” or determined that remaining significant impacts are unavoidable. CEQA Guidelines § 15092(b)(2). All mitigation must be feasible and fully enforceable, and all feasible mitigation must be imposed by lead agencies. CEQA Guidelines, § 15041.

Here, the DEIR finds significant and unavoidable biological resource impacts. DEIR at 1-22. Specifically, the DEIR notes that the Project poses potentially significant impacts to golden eagles, burrowing owls, and raptor species such as Cooper’s hawk, Prairie falcon, and Ferruginous hawk. DEIR at 4.4-45 – 4.4-48. Thus, to mitigate such impacts, the DEIR implements various mitigation measures. DEIR at 4.4-52 *et seq.* However, the measures fail to adequately mitigate such impacts for several reasons.

F

With regard to mitigation measure 4.4-8, which requires preconstruction surveys for nesting birds, the measure fails to comply with the California Department of Fish and Wildlife (“CDFW”) recommendations. First, the measure defines the nesting season as February 1-August 31. DEIR at 4.4-57. However, per the June 5, 2023 CDFW letter to the County regarding the Project, the nesting season goes from February 1 until

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September 15. Letter at 9.⁹ Moreover, the measure requires that surveys be conducted within 14 days of vegetation clearing while the CDFW recommends that such survey be conducted within 10 days of clearing. *Id.* Finally, the measure requires implementation of only a 100 foot buffer for non-listed species and a 300-foot buffer for non-listed raptors should an active nest be found while CDFW recommends a minimum 250-foot buffer for non-listed bird species and a 500-foot buffer for non-listed raptors. *Id.* The measure should be revised to comply with CDFW recommendations.

F cont.

Additionally, the DEIR fails to implement any mitigation measures to decrease the impacts of artificial outdoor lighting on wildlife species. As noted by the CDFW in a letter regarding a similar solar wind project in the County, Project activities could result in disruption of wildlife behavior, inadvertent injury, or mortality because “[i]nstallation of outdoor artificial night lighting can disrupt the circadian rhythms of many wildlife species [since] [m]any species use photoperiod cues for communication, determining when to begin foraging, thermoregulation behavior, and migration.”¹⁰ Thus, the CDFW recommends that a number of potentially feasible mitigation measures be considered, including: motion sensitive lighting; mounting light circadian rhythms of many wildlife species use of light fittings that direct and confine the spread of light downward; and use of long-wavelength light sources. In addition, CDFW recommends that lighting is not installed in ecologically sensitive areas (e.g., streams, wetlands, and habitat used by special status species, such as nesting/roosting sites and riparian corridors) and the use of the white/blue wavelengths of the light spectrum be avoided.¹¹ The DEIR must be revised to also consider these measures or explain in depth why such measures are infeasible or unnecessary.

G

Finally, given the DEIR’s findings of significant and unavoidable biological impacts, the DEIR should require that the developer pay a mitigation fee of at minimum

H

⁹ The June 5, 2023 CDFW Letter is available at https://files.ceqanet.opr.ca.gov/287705-1/attachment/4vmTnkgLWYNqvHHOIPj_wjMKzB2bnzUO9LTPF5etNe6xjheVNF8AJHCPHaM75yeiSsDdKSe-xE1LDhKqT0

¹⁰ December 22, 2022 CDFW Letter re Bullhead Solar Project at 12, available at [https://files.ceqanet.opr.ca.gov/283328-1/attachment/zXCIEWQBncYyyyq7tqTz6v4nET6\]zsAd20BVAVT3qgTj-s9m2bME0oWkA_CstbsZ9V4ZA_8CLP6wajUk0](https://files.ceqanet.opr.ca.gov/283328-1/attachment/zXCIEWQBncYyyyq7tqTz6v4nET6]zsAd20BVAVT3qgTj-s9m2bME0oWkA_CstbsZ9V4ZA_8CLP6wajUk0)

¹¹ *Id.*

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\$75,000 to a well renown wildlife conservation organization such as the Audubon Society to further mitigate the Project’s biological resource impacts.

H cont.

B. The DEIR’s Hazardous Material Findings and Analysis Are Insufficient

It is well established that EIR findings must be supported by substantial evidence. CEQA Guidelines § 15091(b). Additionally, determinations that regulatory compliance will be sufficient to prevent significant adverse impacts must be based on a project-specific analysis of potential impacts and the effect of regulatory compliance. See *Californians for Alternatives to Toxics v. Department of Food & Agric.* (2005) 136 Cal. App. 4th 1; *Ebbetts Pass Forest Watch v Department of Forestry & Fire Protection* (2008) 43 Cal. App. 4th 936, 956.

Here, as the DEIR recognizes, “batteries may be considered hazardous waste in California when they are discarded”. DEIR at 4.9-28. Nevertheless, the DEIR fails to assess the amount of hazardous waste which the Project may produce upon being decommissioned nor where and how the batteries will be disposed of. *Id.* Instead, the DEIR merely provides that the batteries will be hauled offsite and recycled or disposed of “at an appropriate location in accordance with all applicable hazardous waste requirements.” *Id.*

Such vague and indefinite statements, absent any Project-specific analysis, cannot amount to substantial evidence supporting the DEIR’s less than significant hazardous waste findings, especially when considering the sheer amount of batteries which will be needed to facilitate the Project. The DEIR must be revised and recirculated to provide an in-depth discussion of how many batteries the Project is anticipated to require, how much hazardous waste the Project is anticipated to produce upon decommissioning, as well as where and how the batteries will be disposed of.

C. The DEIR Defers its Hydrology/Water Quality Mitigation Measures

CEQA mitigation measures proposed and adopted are required to describe what actions will be taken to reduce or avoid an environmental impact. CEQA Guidelines § 15126.4(a)(1)(B) (providing “[f]ormulation of mitigation measures should not be deferred until some future time.”). While the same Guidelines section 15126.5(a)(1)(B) acknowledges an exception to the rule against deferrals, such exception is narrowly proscribed to situations where it is impractical or infeasible to include those details during the project’s environmental review.

I

J

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The DEIR fails to adhere to these requirements with regard to its hydrology/water quality mitigation measures. Specifically, to mitigate the Project’s “potential for operation period water quality degradation”, the DEIR imposes two mitigation measures, MM 4.10-1 and MM 4.10-2. DEIR at 4.10-19 – 4.10-21. However, both measures are improperly deferred.

MM 4.10-1 requires preparation and submission of a Stormwater Pollution Prevention Plan (“SWPPP”) prior to the issuance of a grading permit. In addition to failing to explain why such preparation and submission is not feasible at this time, the DEIR also fails to provide necessary specifications about the SWPPP. For example, although the DEIR provides that the plan may include best management practices to properly contain and dispose hazardous materials and debris, properly cover stockpiled soils, and properly protect and contain fuel and maintenance equipment, it fails to provide any specifications as to what the proper procedures in fact are. DEIR at 4.10-20. Similarly, the mitigation measure provides that additional erosion control measures may be installed as required but fails to specify what such measures include.

J cont.

Likewise, MM 4.10-2 requires completion of a hydrology study and final drainage plan prior to the issuance of a grading permit. However, the DEIR again fails to explain why such preparation is not feasible at this time, thereby constituting deferred mitigation.

K

The DEIR must be revised to provide the necessary specifications noted above as well as an in depth explanation why preparation of the plans cannot be completed at this time.

D. The DEIR Fails to Support its Findings on Land Use with Substantial Evidence

Each California city and county must adopt a comprehensive, long-term general plan governing development. *Napa Citizens for Honest Gov. v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 352, citing Gov. Code §§ 65030, 65300. The general plan sits at the top of the land use planning hierarchy and serves as a “constitution” or “charter” for all future development. *DeVita v. County of Napa* (1995) 9 Cal.4th 763, 773; *Lesher Communications, Inc. v. City of Walnut Creek* (1990) 52 Cal.3d 531, 540.

L

General plan consistency is “the linchpin of California’s land use and development laws; it is the principle which infused the concept of planned growth with the force of law.” *Debottari v. Norco City Council* (1985) 171 Cal.App.3d 1204, 1213. It is well

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established that development projects may not be approved if they interfere with, or frustrate, the general plan’s policies and objectives. *See Napa Citizens*, 91 Cal.App.4th at 378-79; *see also Lesher*, 52 Cal.3d at 544.

Further, CEQA requires any project EIR to analyze the consistency of such project with the General Plan. Guidelines § 15125(d); *See also, Families Unafraid to Uphold Rural El Dorado County v. El Dorado County Bd. of Sup’rs* (1998) 62 Cal.App.4th 1332, 1336. “Because an EIR must analyze inconsistencies with the general plan (14 Cal. Code Regs § 15125(d)), deficiencies in the plan may affect the legal adequacy of the EIR. If the general plan does not meet state standards, an EIR analysis based on the plan may also be defective. For example, in *Guardians of Turlock’s Integrity v. Turlock City Council* (1983) 149 Cal.3d 584, 593, the general plan did not contain a noise element; thus “a necessary foundation” to acceptable analysis in the EIR was missing.” 2 Kostka & Zischke, *Practice Under the Cal. Environmental Quality Act*, § 20.3, p. 20-9; *see also, Friends of “B” Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 998–999.

L cont.

Here, the DEIR notes that the Project requires numerous deviations from the General Plan because it requires multiple zone changes, Specific Plan amendments, and General Plan amendments. DEIR at 4.11-33 - 4.11-34. However, rather than analyzing the consistency of such departures in its land use analysis, the DEIR merely provides that “[b]ecause the project’s zoning classifications are consistent with current Kern County Zoning Ordinance land use designations which allow solar development with a CUP, the project would be consistent with the zoning classification with this discretionary approval.” DEIR at 4.11-35.

Without conducting consistency analysis of the Project’s specific entitlement and General Plan deviations, the DEIR’s less than significant finding is unsupported. For this reason too, the DEIR must be revised and recirculated to provide accurate and good faith disclosures of the Project’s land use impacts.

IV. CONCLUSION

In sum, WSRCC again requests that the County require a local workforce, that the County impose training requirements for the Project’s construction activities to prevent community spread of COVID-19 and other infectious diseases, and that the

M

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County revise and recirculate the DEIR for the Project to address the aforementioned concerns. If the County has any questions, feel free to contact my Office. M cont.

Sincerely,



Talia Nimmer
Attorneys for Western States
Regional Council of Carpenters

Attached:

- March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);
- Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and
- Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

EXHIBIT A

The entirety of Exhibit
A is considered
Comment N

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2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G., C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."¹ CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.²

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.³

¹ "California Emissions Estimator Model." CAPCOA, 2017, available at: <http://www.aqmd.gov/caleemod/home>.

² "California Emissions Estimator Model." CAPCOA, 2017, available at: <http://www.aqmd.gov/caleemod/home>.

³ "CalEEMod User's Guide." CAPCOA, November 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled (“VMT”) associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.⁴

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

$$\text{VMT}_d = \sum (\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$$

Where:

n = Number of land uses being modeled.”⁵

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

$$\text{Emissions}_{\text{pollutant}} = \text{VMT} * \text{E}_{\text{Running,pollutant}}$$

Where:

Emissions_{pollutant} = emissions from vehicle running for each pollutant

VMT = vehicle miles traveled

E_{Running,pollutant} = emission factor for running emissions.”⁶

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.⁷ In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act (“CEQA”) requires that such changes be justified by substantial evidence.⁸ The default number of construction-related worker trips is calculated by multiplying the

⁴ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aamd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.

⁵ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aamd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.

⁶ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aamd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.

⁷ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: http://www.aamd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

⁸ CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.⁹ Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively.¹⁰ Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.¹¹ The operational home-to-work vehicle trip lengths are:

“[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings” (emphasis added).¹²

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).¹³

Worker Trip Length by Air Basin		
Air Basin	Rural (miles)	Urban (miles)
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	16.47	11.17
Minimum	10.80	10.80
Maximum	19.80	14.70
Range	9.00	3.90

⁹ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

¹⁰ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.

¹¹ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.

¹² “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.

¹³ “Appendix D Default Data Tables.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan (“Project”) located in the City of Claremont (“City”). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.¹⁴ In an effort to evaluate the potential for a local hire provision to reduce the Project’s construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO ₂ e)	3,623
Amortized Construction GHG Emissions (MT CO ₂ e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO ₂ e)	3,024
Amortized Construction GHG Emissions (MT CO ₂ e/year)	100.80
% Decrease in Construction-related GHG Emissions	17%

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project’s urbanization level and location.

¹⁴ “Appendix D Default Data Tables.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Attachment A

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	Rural (miles)	Urban (miles)
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	16.47	11.17
Minimum	10.80	10.80
Maximum	19.80	14.70
Range	9.00	3.90

Attachment B

CalEEMod Version: CalEEMod.2016.3.2

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Date: 1/6/2021 1:52 PM

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

**Village South Specific Plan (Proposed)
Los Angeles-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,800.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2788
Regional Shopping Center	58.00	1000sqft	1.29	58,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tbiFireplaces	FireplaceWoodMass	1,019.20	0.00
tbiFireplaces	FireplaceWoodMass	1,019.20	0.00
tbiFireplaces	NumberWood	1.25	0.00
tbiFireplaces	NumberWood	48.75	0.00
tbVehicleTrips	ST_TR	7.16	6.17
tbVehicleTrips	ST_TR	6.39	3.87
tbVehicleTrips	ST_TR	2.46	1.39
tbVehicleTrips	ST_TR	158.37	79.82
tbVehicleTrips	ST_TR	8.19	3.75
tbVehicleTrips	ST_TR	94.36	63.99
tbVehicleTrips	ST_TR	49.97	10.74
tbVehicleTrips	SU_TR	8.07	6.16
tbVehicleTrips	SU_TR	5.86	4.18
tbVehicleTrips	SU_TR	1.05	0.69
tbVehicleTrips	SU_TR	131.84	78.27

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tbVehicleTrips	SU_TR	5.95	3.20
tbVehicleTrips	SU_TR	72.16	57.65
tbVehicleTrips	SU_TR	25.24	6.39
tbVehicleTrips	WD_TR	6.59	5.83
tbVehicleTrips	WD_TR	6.65	4.13
tbVehicleTrips	WD_TR	11.03	6.41
tbVehicleTrips	WD_TR	127.15	65.80
tbVehicleTrips	WD_TR	8.17	3.84
tbVehicleTrips	WD_TR	89.95	62.84
tbVehicleTrips	WD_TR	42.70	9.43
tbWoodstoves	NumberCatalytic	1.25	0.00
tbWoodstoves	NumberCatalytic	48.75	0.00
tbWoodstoves	NumberNoncatalytic	1.25	0.00
tbWoodstoves	NumberNoncatalytic	48.75	0.00
tbWoodstoves	WoodstoveDayYear	25.00	0.00
tbWoodstoves	WoodstoveDayYear	25.00	0.00
tbWoodstoves	WoodstoveWoodMass	999.80	0.00
tbWoodstoves	WoodstoveWoodMass	999.80	0.00

2.0 Emissions Summary

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County Annual

2.1 Overall Construction

Unmitigated Construction

	RDG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.8904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721,682.6	1,721,682.6	0.1294	0.0000	1,724,918.7
2023	0.8148	3.3949	5.8747	0.0178	1.1983	0.0996	1.2989	0.3203	0.0935	0.4138	0.0000	1,827,529.5	1,827,529.5	0.1185	0.0000	1,830,492.5
2024	4.1819	4.1142	6.1625	6.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	8.0400e-003	0.0147	0.0000	52.9078	52.9078	9.0200e-003	0.0000	63.1092
Maximum	4.1819	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721,682.6	1,721,682.6	0.1294	0.0000	1,724,918.7

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

2.1 Overall Construction

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4189	0.0817	0.4996	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.8904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721,682.3	1,721,682.3	0.1294	0.0000	1,724,918.3
2023	0.8148	3.3948	5.8747	0.0178	1.1983	0.0996	1.2989	0.3203	0.0935	0.4138	0.0000	1,627,529.1	1,627,529.1	0.1185	0.0000	1,630,492.1
2024	4.1819	0.1335	0.2810	6.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	9.0200e-003	0.0000	63.1092
Maximum	4.1819	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721,682.3	1,721,682.3	0.1294	0.0000	1,724,918.3

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOx (tons/quarter)	Maximum Mitigated ROG + NOx (tons/quarter)
1	9-1-2021	11-30-2021	1.4103	1.4103
2	12-1-2021	2-28-2022	1.3613	1.3613
3	3-1-2022	5-31-2022	1.1985	1.1985
4	6-1-2022	8-31-2022	1.1921	1.1921
5	9-1-2022	11-30-2022	1.1918	1.1918
6	12-1-2022	2-28-2023	1.0774	1.0774
7	3-1-2023	5-31-2023	1.0320	1.0320
8	6-1-2023	8-31-2023	1.0260	1.0260

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9	9-1-2023	11-30-2023	1.0255	1.0255
10	12-1-2023	2-29-2024	2.9857	2.9857
11	3-1-2024	5-31-2024	1.8207	1.8207
		Highest	2.9857	2.9857

2.2 Overall Operational
Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	H2O	CO2e
	(ton/yr)										(MT/yr)					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5935
Energy	0.1398	1.2312	0.7770	7.8200e-003		0.0986	0.0986		0.0986	0.0986	0.0000	3.8950732	3.8950732	0.1303	0.0488	3,915.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.9559	2.0895	0.0639	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0192
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	595.6420	595.8052	3.0183	0.0755	683.7567
Total	6.8692	8.5223	30.3407	0.0914	7.7979	0.2260	8.0240	2.0895	0.2219	2.3114	236.9712	12,294.1807	12,531.1519	15.7904	0.1260	12,663.4751

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Ares	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0986	0.0986		0.0986	0.0986	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	15.1834	0.0821	7.7979	0.0560	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4988	7,620.4988	0.3407	0.0000	7,620.0192
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2911	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	566.6420	565.8052	3.0183	0.0755	693.7567
Total	6.8692	9.5223	30.3407	0.0914	7.7979	0.2260	8.0240	2.0895	0.2219	2.3114	236.9712	12,294.1807	12,531.1519	15.7904	0.1260	12,963.4751

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/6/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.38
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NSio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OffRoad	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	0.0475	0.4716	0.3235	5.8000e-004	0.0496	0.0233	0.0729	7.5100e-003	0.0216	0.0291	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601

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3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.9000e-004	3.5400e-003	1.9000e-004	4.1300e-003	1.0900e-003	1.8000e-004	1.2900e-003	0.0000	17.4596	17.4596	1.2100e-003	0.0000	17.4989
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	7.5000e-004	9.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.237
Total	2.9900e-003	0.0641	0.0233	2.0000e-004	6.4100e-003	2.1000e-004	6.6200e-003	1.7300e-003	2.0000e-004	1.9300e-003	0.0000	19.6816	19.6816	1.2800e-003	0.0000	19.7136

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.9000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	0.0475	0.4716	0.3235	5.9000e-004	0.0496	0.0233	0.0729	7.5100e-003	0.0216	0.0291	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600

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3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.9000e-004	3.5400e-003	1.9000e-004	4.1300e-003	1.0900e-003	1.8000e-004	1.2900e-003	0.0000	17.4586	17.4586	1.2100e-003	0.0000	17.4989
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	7.5000e-004	9.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.237
Total	2.9900e-003	0.0641	0.0233	2.0000e-004	6.4100e-003	2.1000e-004	6.6200e-003	1.7300e-003	2.0000e-004	1.9300e-003	0.0000	19.6816	19.6816	1.2800e-003	0.0000	19.7136

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1907	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.9000e-004		0.0204	0.0204		0.0189	0.0189	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	0.0389	0.4050	0.2115	3.9000e-004	0.1807	0.0204	0.2011	0.0993	0.0189	0.1181	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061

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3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	8.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	7.7000e-004	8.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0388	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7080
Total	0.0388	0.4050	0.2115	3.8000e-004	0.1807	0.0204	0.2011	0.0993	0.0188	0.1181	0.0000	33.4357	33.4357	0.0108	0.0000	33.7080

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3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	8.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	7.7000e-004	8.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0798	0.8819	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	0.0798	0.8819	0.5867	1.1800e-003	0.1741	0.0377	0.2118	0.0693	0.0347	0.1040	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776

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3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8400e-002	1.2700e-003	0.0144	4.0000e-005	4.1800e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	1.8400e-003	1.2700e-003	0.0144	4.0000e-005	4.1800e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0798	0.8819	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	0.0798	0.8819	0.5867	1.1800e-003	0.1741	0.0377	0.2118	0.0693	0.0347	0.1040	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775

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3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8400e-002	1.2700e-003	0.0144	4.0000e-005	4.1800e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	1.8400e-002	1.2700e-003	0.0144	4.0000e-005	4.1800e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1380	0.1017	2.2000e-004	5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003		0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	0.0127	0.1380	0.1017	2.2000e-004	0.0807	5.7200e-003	0.0807	0.0180	5.2600e-003	0.0233	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414

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3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004	5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003		0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	0.0127	0.1360	0.1017	2.2000e-004	0.0807	5.7200e-003	0.0807	0.0180	5.2600e-003	0.0233	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414

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3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.8884
Total	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.8884

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881

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3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tont/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.8981	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0326	3.0400e-003	0.0358	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3086	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2948	8.1700e-003	0.3031	0.0000	866.8117	866.8117	0.0268	0.0000	867.4773
Total	0.4616	2.0027	3.9885	0.0152	1.2243	0.0121	1.2363	0.3278	0.0112	0.3390	0.0000	1,408.7952	1,408.7952	0.0530	0.0000	1,410.1208

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tont/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877

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3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tont/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.8981	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3088	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	866.8117	866.8117	0.0268	0.0000	867.4773
Total	0.4616	2.0027	3.9885	0.0152	1.2243	0.0121	1.2363	0.3278	0.0112	0.3390	0.0000	1,408.7952	1,408.7952	0.0530	0.0000	1,410.1208

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tans/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0581	0.0000	287.9814
Total	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0581	0.0000	287.9814

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3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.6624
Worker	0.3753	0.2708	3.1698	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2857	0.0000	809.3439	809.3439	0.0234	0.0000	809.9281
Total	0.4135	1.5218	3.5707	0.0144	1.1953	8.8700e-003	1.2051	0.3209	9.1400e-003	0.3292	0.0000	1,327.3369	1,327.3369	0.0462	0.0000	1,328.4919

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0581	0.0000	287.9811
Total	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0581	0.0000	287.9811

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3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1698	0.0101	1.0840	8.4100e-003	1.0924	0.2679	7.7400e-003	0.2657	0.0000	809.3439	809.3439	0.0234	0.0000	809.9281
Total	0.4135	1.5218	3.5707	0.0144	1.1953	9.8700e-003	1.2051	0.3209	9.1400e-003	0.3292	0.0000	1,327.3369	1,327.3369	0.0462	0.0000	1,328.4919

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Off-Road	6.7100e-003	0.0963	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7100e-003	0.0963	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227

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3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Off-Road	6.7100e-003	0.0863	0.0848	1.5000e-004		3.3200e-003	3.3200e-003	3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	0.0000	13.1227
Paving	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7100e-003	0.0863	0.0848	1.5000e-004		3.3200e-003	3.3200e-003	3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	0.0000	13.1227

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3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004	5.1500e-003	5.1500e-003	5.1500e-003	4.7400e-003	4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0109	0.1048	0.1609	2.5000e-004	5.1500e-003	5.1500e-003	5.1500e-003	4.7400e-003	4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073

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3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4897	1.4897	4.0000e-005	0.0000	1.4706
Total	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4897	1.4897	4.0000e-005	0.0000	1.4706

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004	5.1500e-003	5.1500e-003	5.1500e-003	4.7400e-003	4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0109	0.1048	0.1609	2.5000e-004	5.1500e-003	5.1500e-003	5.1500e-003	4.7400e-003	4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073

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3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4897	1.4897	4.0000e-005	0.0000	1.4706
Total	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4897	1.4897	4.0000e-005	0.0000	1.4706

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	4.1404	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745

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3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.9000e-004	0.0307	2.3000e-004	0.0309	8.1800e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	0.0101	6.9900e-003	0.0835	2.9000e-004	0.0307	2.3000e-004	0.0309	8.1800e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4882	4.4882	2.5000e-004	0.0000	4.4745
Total	4.1404	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4882	4.4882	2.5000e-004	0.0000	4.4745

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3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tont/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0935	2.9000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	0.0101	6.9900e-003	0.0935	2.9000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	toms/yr										MT/yr					
Mitigated	1.5857	7.8862	18.1834	0.0821	7.7978	0.0680	7.8659	2.0895	0.0538	2.1434	0.0000	7,620,498.6	7,620,498.6	0.3407	0.0000	7,628,018.2
Unmitigated	1.5857	7.8862	18.1834	0.0821	7.7978	0.0680	7.8659	2.0895	0.0538	2.1434	0.0000	7,620,498.6	7,620,498.6	0.3407	0.0000	7,628,018.2

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4,075.50	13,660,065	13,660,065
General Office Building	268.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.90	2,673.52	2,817.72	3,413,937	3,413,937
Hotel	192.00	187.50	180.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-MW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	66	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	66	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	18.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6365
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6366
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

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5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30813e+007	0.0704	0.6018	0.2561	9.6400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	488450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.8000e-004	25.1488
High Turnover Sit Down Restaurant	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1500e-003	445.9498
Hotel	1.74095e+006	8.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.96608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5138	98.5138	1.8900e-003	1.8100e-003	99.0963
Regional Shopping Center	91640	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.8009	4.8009	9.0000e-005	8.0000e-005	4.8301
Total		0.1398	1.2212	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4268	1,383.4268	0.0265	0.0254	1,391.6478

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5.2 Energy by Land Use - Natural Gas
Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30813e+007	0.0704	0.6018	0.2561	9.6400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	488450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.8000e-004	25.1488
High Turnover Sit Down Restaurant	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1500e-003	445.9498
Hotel	1.74095e+006	8.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.96608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	88.5138	88.5138	1.8900e-003	1.8100e-003	89.0963
Regional Shopping Center	91640	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.8009	4.8009	9.0000e-005	9.0000e-005	4.8301
Total		0.1398	1.2212	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4268	1,383.4268	0.0265	0.0254	1,391.6478

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	KWh/yr	M/yr			
Apartments Low-Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid-Rise	3.84697e+006	1.257587	0.0518	0.0107	1.262086
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.28904e+006	506.2022	0.0209	4.3300e-003	509.1135
Hotel	560308	175.3398	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6600e-003	9.6000e-004	112.9141
Regional Shopping Center	756900	240.8778	9.9400e-003	2.0800e-003	241.7395
Total		2,512.6465	0.1037	0.0215	2,521.6356

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	KWh/yr	M/yr			
Apartments Low-Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid-Rise	3,84697e+006	1,257.5879	0.0518	0.0107	1,262.0868
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	188.9165
High Turnover (Sit Down Restaurant)	1,28904e+006	506.2022	0.0209	4.3300e-003	509.1135
Hotel	560308	175.3398	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6600e-003	9.6000e-004	112.9141
Regional Shopping Center	756900	240.8778	9.9400e-003	2.0800e-003	241.7395
Total		2,512.6465	0.1037	0.0215	2,521.6336

6.0 Area Detail

6.1 Mitigation Measures Area

Village South Specific Plan (Proposed) - Los Angeles-South Coast County Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1169	204.1169	3.6100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1197	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2640
Total	5.1437	0.2950	10.3804	1.6600e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

Village South Specific Plan (Proposed) - Los Angeles-South Coast County Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.6100e-003	3.7400e-003	205.3296	
Landscaping	0.3095	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8604	16.8604	0.0161	0.0000	17.2540	
Total	5.1437	0.2950	10.3804	1.5600e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835	

7.0 Water Detail

7.1 Mitigation Measures Water

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	595.8052	3.0193	0.0755	683.7567
Unmitigated	595.8052	3.0193	0.0755	683.7567

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7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62985 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	51.9019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697456	51.2702	0.3580	8.8200e-003	62.9482
Hotel	1.26934 / 0.149927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	3.42827 / 0.154996	11.3534	0.0796	1.9600e-003	13.9953
Regional Shopping Center	4.14806 / 2.54236	27.5260	0.1363	3.4200e-003	31.9490
Total		385.8932	3.0183	0.0755	683.7587

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1,62985 / 1,02688	10,9095	0,0535	1,3400e-003	12,6471
Apartments Mid Rise	63,5252 / 40,0485	425,4719	2,0867	0,0523	493,2363
General Office Building	7,99802 / 4,90201	53,0719	0,2627	6,5900e-003	61,9019
High Turnover (Sit Down Restaurant)	10,9272 / 0,69745	51,2702	0,3580	8,8200e-003	62,9482
Hotel	1,26934 / 0,149927	6,1633	0,0416	1,0300e-003	7,5079
Quality Restaurant	2,42827 / 0,154996	11,3534	0,0796	1,9600e-003	13,9953
Regional Shopping Center	4,14806 / 2,54235	27,5260	0,1363	3,4200e-003	31,9490
Total		385,8932	3,0183	0,0755	683,7587

8.0 Waste Detail

8.1 Mitigation Measures Waste

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	Tons	MT/yr			
Apartments Low Rise	11.5	2,3344	0.1380	0.0000	5,7834
Apartments Mid Rise	448.5	91,0415	5,3804	0.0000	225,5513
General Office Building	41.95	8,4952	0.5021	0.0000	21,0484
High Turnover (Sit Down Restaurant)	428.4	98,9913	5,1393	0.0000	215,4430
Hotel	27.38	5,5578	0.3285	0.0000	13,7694
Quality Restaurant	7.3	1,4916	0.0876	0.0000	3,8712
Regional Shopping Center	58.8	11,9359	0.7054	0.0000	29,5706
Total		207,8079	12,2811	0.0000	514,8354

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	Tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5613
General Office Building	41.95	8.4952	0.5021	0.0000	21.0484
High Turnover (Sit Down Restaurant)	428.4	98.9913	5.1393	0.0000	215.4430
Hotel	27.38	5.5578	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4916	0.0976	0.0000	3.6712
Regional Shopping Center	59.8	11.9359	0.7054	0.0000	29.5706
Total		207.8979	12.2811	0.0000	514.8354

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Village South Specific Plan (Proposed)
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,800.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2788
Regional Shopping Center	58.00	1000sqft	1.29	58,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tbiFireplaces	FireplaceWoodMass	1,019.20	0.00
tbiFireplaces	FireplaceWoodMass	1,019.20	0.00
tbiFireplaces	NumberWood	1.25	0.00
tbiFireplaces	NumberWood	48.75	0.00
tbVehicleTrips	ST_TR	7.16	6.17
tbVehicleTrips	ST_TR	6.39	3.87
tbVehicleTrips	ST_TR	2.46	1.39
tbVehicleTrips	ST_TR	158.37	79.82
tbVehicleTrips	ST_TR	8.19	3.75
tbVehicleTrips	ST_TR	94.36	63.99
tbVehicleTrips	ST_TR	49.97	10.74
tbVehicleTrips	SU_TR	8.07	6.16
tbVehicleTrips	SU_TR	5.86	4.18
tbVehicleTrips	SU_TR	1.05	0.69
tbVehicleTrips	SU_TR	131.84	78.27

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

tbVehicleTrips	SU_TR	5.95	3.20
tbVehicleTrips	SU_TR	72.16	57.65
tbVehicleTrips	SU_TR	25.24	6.39
tbVehicleTrips	WD_TR	6.59	5.83
tbVehicleTrips	WD_TR	6.65	4.13
tbVehicleTrips	WD_TR	11.03	6.41
tbVehicleTrips	WD_TR	127.15	65.80
tbVehicleTrips	WD_TR	8.17	3.84
tbVehicleTrips	WD_TR	89.95	62.84
tbVehicleTrips	WD_TR	42.70	9.43
tbWoodstoves	NumberCatalytic	1.25	0.00
tbWoodstoves	NumberCatalytic	48.75	0.00
tbWoodstoves	NumberNoncatalytic	1.25	0.00
tbWoodstoves	NumberNoncatalytic	48.75	0.00
tbWoodstoves	WoodstoveDayYear	25.00	0.00
tbWoodstoves	WoodstoveDayYear	25.00	0.00
tbWoodstoves	WoodstoveWoodMass	999.80	0.00
tbWoodstoves	WoodstoveWoodMass	999.80	0.00

2.0 Emissions Summary

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	RDG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4568	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9496	0.0000	6,283.5352
2022	5.3304	38.8987	49.5628	0.1517	9.9668	1.6366	10.7727	3.6568	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8967	29.3317	46.7667	0.1472	9.8698	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1621
2024	237.1630	9.6575	15.1043	0.0244	1.7894	0.4898	1.9628	0.4743	0.4322	0.6475	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	237.1630	46.4568	49.5628	0.1517	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.9840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9496	0.0000	6,283.5352
2022	5.3304	38.8987	49.5628	0.1517	9.9688	1.6366	10.7727	3.6568	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8967	29.3317	46.7667	0.1472	9.8698	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7894	0.4898	1.9628	0.4743	0.4322	0.5475	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	237.1630	46.4588	49.5628	0.1517	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59 50	18,148.59 50	0.4874	0.3300	19,258.11 92
Energy	0.7960	6.7482	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,365.983 2	8,365.983 2	0.1602	0.1532	8,405.638 7
Mobile	9.8489	45.4304	114.8495	0.4817	45.9582	0.3360	46.2951	12.2950	0.3118	12.6070		50,308.60 34	50,308.60 34	2.1807		50,361.12 88
Total	41.1168	67.2282	207.5497	0.6278	45.9582	2.4626	48.4217	12.2950	2.4385	14.7336	0.0000	76,811.18 16	76,811.18 16	2.8282	0.4832	77,025.87 88

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59 50	18,148.59 50	0.4874	0.3300	19,258.11 92
Energy	0.7960	6.7482	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,365.983 2	8,365.983 2	0.1602	0.1532	8,405.638 7
Mobile	9.8489	45.4304	114.8495	0.4817	45.9582	0.3360	46.2951	12.2950	0.3118	12.6070		50,308.60 34	50,308.60 34	2.1807		50,361.12 88
Total	41.1168	67.2282	207.5497	0.6278	45.9582	2.4626	48.4217	12.2950	2.4385	14.7336	0.0000	76,811.18 16	76,811.18 16	2.8282	0.4832	77,025.87 88

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.38
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NSio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
OffRoad	3.1851	31.4407	21.5850	0.0388		1.5513	1.5513		1.4411	1.4411			3,747.9449	3,747.9449	1.0549	3,774.3174
Total	3.1851	31.4407	21.5850	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419			3,747.9449	3,747.9449	1.0549	3,774.3174

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3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2689	0.0126	0.2766	0.0732	0.0120	0.0652			1,292.3413	0.0977		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1877	1.3500e-003	0.1890	0.0445	1.2500e-003	0.0457			170.8155	5.0300e-003		170.9413
Total	0.1916	4.1394	1.5644	0.0136	0.4346	0.0139	0.4485	0.1176	0.0133	0.1309			1,463.0569	0.0927		1,465.3759

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000		3,747.9449	1.0549		3,774.3174
Total	3.1651	31.4407	21.5650	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419	0.0000		3,747.9449	1.0549		3,774.3174

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3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2689	0.0126	0.2766	0.0732	0.0120	0.0652			1,292.2413	0.0977		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1877	1.3500e-003	0.1890	0.0445	1.2500e-003	0.0457			170.8155	5.0300e-003		170.8413
Total	0.1916	4.1394	1.5644	0.0136	0.4346	0.0139	0.4485	0.1176	0.0133	0.1309			1,463.0569	0.0927		1,465.3759

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8909	1.8909			3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8909	11.8116			3,685.6569	1.1920		3,715.4573

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3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0548		204.9786	204.9786	6.0400e-003		205.1296
Total	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0548		204.9786	204.9786	6.0400e-003		205.1296

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

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3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0548		204.9786	204.9786	6.0400e-003		205.1296
Total	0.772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0548		204.9786	204.9786	6.0400e-003		205.1296

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5865	0.0000	3.5865			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.8853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5865	1.8265	5.4230		6,007.0434	6,007.0434	1.9428		6,055.6134

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3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2800e-003	0.2238	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	0.0857	0.0589	0.8056	2.2800e-003	0.2238	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5865	0.0000	3.5865			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.8853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5865	1.8265	5.4230	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134

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3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0857	0.0589	0.8056	2.2800e-003	0.2238	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003			227.9217
Total	0.0857	0.0589	0.8056	2.2800e-003	0.2238	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003			227.9217

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5865	0.0000	3.5865			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041			6,011.4105	6,011.4105	1.9442	6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5865	1.5041	5.1006			6,011.4105	6,011.4105	1.9442	6,060.0158

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.9941
Total	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.9941

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	39.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	39.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

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3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2238	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.9941
Total	0.0803	0.0532	0.7432	2.2100e-003	0.2238	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.9941

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

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3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.4075	13.2032	3.4341	0.0384	0.9155	0.0248	0.9404	0.2536	0.0297	0.2833		3,896.5482	3,896.5482	0.2236			3,902.1394
Worker	3.2182	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3746	0.0646	2.4392		8,900.6867	8,900.6867	0.3429			8,906.7692
Total	3.6247	15.3350	33.1995	0.1247	9.8688	0.0949	9.9637	2.6281	0.0943	2.7223		12,697.2339	12,697.2339	0.4665			12,708.8966

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120			2,569.6322
Total	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120			2,569.6322

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3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4075	13.2032	3.4341	0.0384	0.9155	0.0248	0.9404	0.2536	0.0297	0.2833		3,896.5482	3,896.5482	0.2236		3,902.1394
Worker	3.2182	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3746	0.0646	2.4392		8,800.6857	8,800.6857	0.3429		8,806.7692
Total	3.6247	15.3350	33.1995	0.1247	9.8688	0.0949	9.9637	2.6281	0.0943	2.7223		12,697.2339	12,697.2339	0.4665		12,708.8966

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6078		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6078		2,570.4061

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3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982			3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3746	0.0627	2.4372		8,478.4408	8,478.4408	0.2190			8,483.9160
Total	3.3229	11.9468	30.5127	0.1203	9.8688	0.0797	9.9485	2.6381	0.0738	2.7118		12,252.3170	12,252.3170	0.4172			12,262.7480

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555,209.9	2,555,209.9	0.6078			2,570,406.1
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555,209.9	2,555,209.9	0.6078			2,570,406.1

Village South Specific Plan (Proposed) – Los Angeles-South Coast County, Summer

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.8156	0.0116	0.8271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982			3,778.8300
Worker	3.0203	1.8287	27.4113	0.0851	8.9533	0.0881	9.0214	2.3746	0.0627	2.4372		8,478.4408	8,478.4408	0.2190			8,483.9160
Total	3.3229	11.8468	30.5127	0.1203	9.8688	0.0797	9.9485	2.6381	0.0738	2.7118		12,252.3170	12,252.3170	0.4172			12,262.7480

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140			2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140			2,225.4336

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Village South Specific Plan (Proposed) – Los Angeles-South Coast County, Summer

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

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Village South Specific Plan (Proposed) – Los Angeles-South Coast County, Summer

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310			2,207,547.2	2,207,547.2	0.7140	2,225,396.3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310			2,207,547.2	2,207,547.2	0.7140	2,225,396.3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.8458
Total	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.8458

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207,547.2	2,207,547.2	0.7140		2,225,396.3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207,547.2	2,207,547.2	0.7140		2,225,396.3

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.8458
Total	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.8458

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0609	0.0609		0.0609	0.0609			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0166	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	0.5707	0.3513	5.1044	0.0166	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0609	0.0609		0.0609	0.0609			0.0000			0.0000
Off-Road	0.1808	5.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	236.5923	5.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0166	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641,085.2	1,641,085.2	0.0401		1,642,088.6
Total	0.5707	0.3513	5.1044	0.0166	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641,085.2	1,641,085.2	0.0401		1,642,088.6

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.8489	45.4304	114.8466	0.4917	45.9692	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60	50,306.60	2.1607		60,361.12
Unmitigated	8.8489	45.4304	114.8466	0.4917	45.9692	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60	50,306.60	2.1607		60,361.12

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4,075.50	13,660,065	13,660,065
General Office Building	268.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.90	2,673.52	2,817.72	3,413,937	3,413,937
Hotel	192.00	167.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-MW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	66	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	66	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Hotel)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Quality Restaurant	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Regional Shopping Center	16.60	8.40	6.90	18.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7860	8,7462	4,2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355,983.2	8,355,983.2	0.1602	0.1532	8,405,638.7
NaturalGas Unmitigated	0.7860	8,7462	4,2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355,983.2	8,355,983.2	0.1602	0.1532	8,405,638.7

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - Natural Gas

Unmitigated

Land Use	Natural Gas Use kBtu/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBtu/yr	t/day										t/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0436	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.6200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2878	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,206.9164	4,209.9164	0.0807	0.0772	4,234.9335
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.9900e-003	2.7700e-003	151.8894
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.8342	2,677.8342	0.0613	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3828	2.9100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4859	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	596.5659
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		0.7660	6.7463	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.8387

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - Natural Gas

Mitigated

Land Use	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	t/day										t/day					
Apartments Low Rise	1,11916	0.0121	0.1031	0.0439	6.6000e-004	8.3400e-003	8.3400e-003	8.3400e-003	8.3400e-003	8.3400e-003	8.3400e-003	131.8862	131.8862	2.5200e-003	2.4100e-003		132.4486
Apartments Mid Rise	35,7843	0.3859	3.2878	1.4033	0.0211	0.2666	0.2666	0.2666	0.2666	0.2666	0.2666	4,209.9164	4,209.9164	0.0807	0.0772		4,234.9335
General Office Building	1,26342	0.0138	0.1258	0.1057	7.5000e-004	9.5600e-003	9.5600e-003	9.5600e-003	9.5600e-003	9.5600e-003	9.5600e-003	150.9911	150.9911	2.9900e-003	2.7700e-003		151.8894
High Turnover Sit Down Restaurant	22,7599	0.2455	2.2314	1.8743	0.0134	0.1696	0.1696	0.1696	0.1696	0.1696	0.1696	2,677.8342	2,677.8342	0.0613	0.0491		2,693.5460
Hotel	4,78972	0.0514	0.4676	0.3828	2.8100e-003	0.0355	0.0355	0.0355	0.0355	0.0355	0.0355	561.1436	561.1436	0.0108	0.0103		564.4782
Quality Restaurant	5,95775	0.0545	0.4859	0.4165	2.9800e-003	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377	595.0298	595.0298	0.0114	0.0109		598.5659
Regional Shopping Center	0,251616	2.7100e-003	0.0247	0.0207	1.5000e-004	1.8700e-003	1.8700e-003	1.8700e-003	1.8700e-003	1.8700e-003	1.8700e-003	29.6019	29.6019	5.7000e-004	5.4000e-004		29.7778
Total		0.7660	6.7463	4.2573	0.0418	0.5292	0.5292	0.5292	0.5292	0.5292	0.5292	8,355.9832	8,355.9832	0.1602	0.1532		8,405.8387

6.0 Area Detail

6.1 Mitigation Measures Area

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192
Unmitigated	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6600	14.1000	6.0000	0.0800		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5960	148.5960	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192

Village South Specific Plan (Proposed) – Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2870					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.8500	14.1000	8.0000	0.0500		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.00	18,000.00	0.3450	0.3300	18,108.96
Landscaping	2.4756	0.8489	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		162.1542
Total	30.5020	15.0496	88.4430	0.0914		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59	18,148.59	0.4874	0.3300	18,259.11

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Village South Specific Plan (Proposed)
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,800.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2788
Regional Shopping Center	58.00	1000sqft	1.29	58,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	8.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

tbVehicleTrips	SU_TR	5.95	3.20
tbVehicleTrips	SU_TR	72.16	57.65
tbVehicleTrips	SU_TR	25.24	6.39
tbVehicleTrips	WD_TR	6.59	5.83
tbVehicleTrips	WD_TR	6.65	4.13
tbVehicleTrips	WD_TR	11.03	6.41
tbVehicleTrips	WD_TR	127.15	65.80
tbVehicleTrips	WD_TR	8.17	3.84
tbVehicleTrips	WD_TR	89.95	62.84
tbVehicleTrips	WD_TR	42.70	9.43
tbWoodstoves	NumberCatalytic	1.25	0.00
tbWoodstoves	NumberCatalytic	48.75	0.00
tbWoodstoves	NumberNoncatalytic	1.25	0.00
tbWoodstoves	NumberNoncatalytic	48.75	0.00
tbWoodstoves	WoodstoveDayYear	25.00	0.00
tbWoodstoves	WoodstoveDayYear	25.00	0.00
tbWoodstoves	WoodstoveWoodMass	999.80	0.00
tbWoodstoves	WoodstoveWoodMass	999.80	0.00

2.0 Emissions Summary

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	RDG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4851	31.6160	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221,493.7	6,221,493.7	1.9491	0.0000	6,270,221.4
2022	5.7218	38.9024	47.3319	0.1455	9.9668	1.6366	10.7736	3.6568	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9489	0.0000	14,657.2653
2023	5.2705	26.4914	44.5936	0.1413	9.8698	0.7800	10.6498	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9180
2024	237.2328	9.5610	15.0611	0.0243	1.7894	0.4898	1.9628	0.4743	0.4322	0.6475	0.0000	2,352,417.8	2,352,417.8	0.7175	0.0000	2,370,355.0
Maximum	237.2328	46.4851	47.3319	0.1455	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4851	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221,493.7	6,221,493.7	1.9491	0.0000	6,270,221.4
2022	5.7218	38.9024	47.3319	0.1455	9.9668	1.6366	10.7736	3.6568	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9489	0.0000	14,657.2653
2023	5.2705	29.4914	44.5936	0.1413	9.8698	0.7800	10.6498	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9180
2024	237.2328	9.5610	15.0611	0.0243	1.7894	0.4898	1.9628	0.4743	0.4322	0.6475	0.0000	2,352,417.9	2,352,417.9	0.7175	0.0000	2,370,355.0
Maximum	237.2328	46.4851	47.3319	0.1455	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2683
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192
Energy	0.7960	6.7482	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,365.9832	8,365.9832	0.1602	0.1532	8,405.8387
Mobile	9.5233	46.9914	110.0422	0.4691	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	40.7912	67.7872	202.7424	0.6043	45.9592	2.4640	48.4231	12.2950	2.4399	14.7349	0.0000	74,422.3787	74,422.3787	2.8429	0.4832	74,637.4417

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192
Energy	0.7960	6.7482	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,365.9832	8,365.9832	0.1602	0.1532	8,405.8387
Mobile	9.5233	46.9914	110.0422	0.4691	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	40.7912	67.7872	202.7424	0.6043	45.9592	2.4640	48.4231	12.2950	2.4399	14.7349	0.0000	74,422.3787	74,422.3787	2.8429	0.4832	74,637.4417

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.38
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NSio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
OffRoad	3.1851	31.4407	21.5850	0.0388		1.5513	1.5513		1.4411	1.4411			3,747.9449	3,747.9449	1.0548	3,774.3174
Total	3.1851	31.4407	21.5850	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419			3,747.9449	3,747.9449	1.0548	3,774.3174

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0192	0.0117	0.2689	0.0128	0.2797	0.0732	0.0122	0.0654			1,269,865.5	0.0908		1,272,125.2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.8100e-003	0.1877	1.3500e-003	0.1890	0.0445	1.2500e-003	0.0457			180,837.7	4.7300e-003		180,956.0
Total	0.2019	4.1943	1.5706	0.0133	0.4346	0.0141	0.4487	0.1176	0.0135	0.1311			1,436,693.2	0.0955		1,433,081.2

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000		3,747,944.9	1.0549		3,774,317.4
Total	3.1651	31.4407	21.5650	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419	0.0000		3,747,944.9	1.0549		3,774,317.4

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0192	0.0117	0.2689	0.0128	0.2797	0.0732	0.0122	0.0654			1,269,865.5	0.0908		1,272,125.2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.8100e-003	0.1877	1.3500e-003	0.1890	0.0445	1.2500e-003	0.0457			180,837.7	4.7300e-003		180,956.0
Total	0.2019	4.1943	1.5706	0.0133	0.4346	0.0141	0.4487	0.1176	0.0135	0.1311			1,430,693.2	0.0955		1,433,081.2

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809			3,685,656.9	1.1920		3,715,457.3
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116			3,685,656.9	1.1920		3,715,457.3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0548		193.0052	193.0052	5.6900e-003		193.1472
Total	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0548		193.0052	193.0052	5.6900e-003		193.1472

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.8629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0548		193.0052	193.0052	5.8900e-003		193.1472
Total	0.0858	0.0587	0.8629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0548		193.0052	193.0052	5.8900e-003		193.1472

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5865	0.0000	3.5865			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.8853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5865	1.8265	5.4230		6,007.0434	6,007.0434	1.9428		6,055.6134

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2238	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	0.0954	0.0652	0.7365	2.1500e-003	0.2238	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2238	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	0.0954	0.0652	0.7365	2.1500e-003	0.2238	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041			6,011.4105	6,011.4105	1.9442	6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006			6,011.4105	6,011.4105	1.9442	6,060.0158

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2238	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	0.0896	0.0589	0.6784	2.0800e-003	0.2238	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	39.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	39.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2238	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	0.0896	0.0589	0.6784	2.0800e-003	0.2238	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0258	0.9412	0.2536	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0293
Worker	3.5872	2,3593	27,1890	0.0832	8,9533	0.0701	9,0234	2,3746	0.0646	2,4390		8,286.9013	8,286.9013	0.2382		8,292.5058
Total	4.0156	15,5266	30,9885	0.1186	9,8688	0.0957	9,9645	2,6381	0.0891	2,7271		12,075.9763	12,075.9763	0.4663		12,087.6341

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15,6156	16,3634	0,0269		0,8090	0,8090		0,7612	0,7612	0,0000	2,554,3336	2,554,3336	0,6120		2,569,6322

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0258	0.9412	0.2536	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0293
Worker	3.5872	2,3593	27.1890	0.0832	8.9533	0.0701	9.0234	2,3746	0.0646	2,4390		8,286.9013	8,286.9013	0.2382		8,292.5058
Total	4.0156	15.5266	30.9885	0.1186	9.8688	0.0957	9.9645	2.6381	0.0891	2.7271		12,075.9763	12,075.9763	0.4663		12,082.6341

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6078		2,570.4091
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4091

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3193	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671,400	3,671,400	0.2096		3,675,641
Worker	3.3795	2,1398	24,9725	0.0801	8,9533	0.0691	9,0214	2,3746	0.0627	2,4372		7,983,731	7,983,731	0.2055		7,986,986
Total	3.6978	12,1063	28,3496	0.1144	9,8688	0.0802	9,9491	2,6381	0.0743	2,7124		11,655,132	11,655,132	0.4151		11,655,599

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14,3849	16,2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555,209	2,555,209	0.6079		2,570,409
Total	1.5728	14,3849	16,2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555,209	2,555,209	0.6079		2,570,409

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.3193	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096			3,675.6417
Worker	3.3795	2.1398	24.9725	0.0801	8.9533	0.0691	9.0214	2.3746	0.0627	2.4372		7,983.7318	7,983.7318	0.2055			7,986.9683
Total	3.6978	12.1063	28.3496	0.1144	9.8688	0.0802	9.9491	2.6381	0.0743	2.7124		11,655.1325	11,655.1325	0.4151			11,655.5099

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.0327	10.1917	14.5942	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140			2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Total	1.0327	10.1917	14.5942	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140			2,225.4336

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.5043
Total	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.5043

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000				0.0000		0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.5043
Total	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.5043

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310			2,207.5472	2,207.5472	0.7140	2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310			2,207.5472	2,207.5472	0.7140	2,225.3963

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207,547.2	2,207,547.2	0.7140		2,225,396.3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000				0.0000		0.0000
Total	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207,547.2	2,207,547.2	0.7140		2,225,396.3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0609	0.0609		0.0609	0.0609			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545,286 0	1,545,286 0	0.0376		1,546,226 2
Total	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545,286 0	1,545,286 0	0.0376		1,546,226 2

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0609	0.0609		0.0609	0.0609			0.0000			0.0000
Off-Road	0.1808	3.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	236.5923	3.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866	1,545,286	0	1,545,286	0	0.0376	1,546,226
Total	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866	1,545,286	0	1,545,286	0	0.0376	1,546,226

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,025.75	3,773.25	4,075.50	13,660,065	13,660,065
General Office Building	268.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)		2,673.52		3,413,937	3,413,937
Hotel	192.00	167.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-MW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	66	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	66	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	18.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7860	8.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355,983	8,355,983	0.1602	0.1532	8,405,638
NaturalGas Unmitigated	0.7860	8.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355,983	8,355,983	0.1602	0.1532	8,405,638

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - Natural Gas

Unmitigated

Land Use	Natural Gas Use kBtu/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	iCO2e
Land Use	kBtu/yr	t/day										t/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0436	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.6200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2878	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9335
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.9900e-003	2.7700e-003	151.8994
High Turnover Sit Down Restaurant	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.8342	2,677.8342	0.0613	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3828	2.9100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4859	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	596.5659
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		0.7660	6.7463	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.8387

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - Natural Gas

Mitigated

Land Use	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	iCO2e
Land Use	kBTU/yr	t/day										t/day					
Apartments Low Rise	1,11916	0.0121	0.1031	0.0439	6.6000e-004	8.3400e-003	8.3400e-003	8.3400e-003	8.3400e-003	8.3400e-003	8.3400e-003	131.8862	131.8862	2.5200e-003	2.4100e-003		132.4486
Apartments Mid Rise	35,7843	0.3859	3.2878	1.4033	0.0211	0.2666	0.2666	0.2666	0.2666	0.2666	0.2666	4,209.9164	4,209.9164	0.0807	0.0772		4,234.9335
General Office Building	1,26342	0.0138	0.1258	0.1057	7.5000e-004	9.5600e-003	9.5600e-003	9.5600e-003	9.5600e-003	9.5600e-003	9.5600e-003	150.9911	150.9911	2.9900e-003	2.7700e-003		151.8894
High Turnover Sit Down Restaurant	22,7599	0.2455	2.2314	1.8743	0.0134	0.1696	0.1696	0.1696	0.1696	0.1696	0.1696	2,677.8342	2,677.8342	0.0613	0.0491		2,693.5460
Hotel	4,78972	0.0514	0.4676	0.3828	2.8100e-003	0.0355	0.0355	0.0355	0.0355	0.0355	0.0355	561.1436	561.1436	0.0108	0.0103		564.4782
Quality Restaurant	5,95775	0.0545	0.4859	0.4165	2.9800e-003	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377	595.0298	595.0298	0.0114	0.0109		596.5659
Regional Shopping Center	0,251616	2.7100e-003	0.0247	0.0207	1.5000e-004	1.8700e-003	1.8700e-003	1.8700e-003	1.8700e-003	1.8700e-003	1.8700e-003	29.6019	29.6019	5.7000e-004	5.4000e-004		29.7778
Total		0.7660	6.7463	4.2573	0.0418	0.5292	0.5292	0.5292	0.5292	0.5292	0.5292	8,355.9832	8,355.9832	0.1602	0.1532		8,405.8387

6.0 Area Detail

6.1 Mitigation Measures Area

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192
Unmitigated	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6600	14.1000	6.0000	0.0800		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5960	148.5960	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	2.2870					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Hearth	1.8500	14.1000	8.0000	0.0500		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.00	18,000.00	0.3450	0.3300		18,108.96
Landscaping	2.4755	0.8489	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424			162.1542
Total	30.5020	15.0496	88.4430	0.0914		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59	18,148.59	0.4874	0.3300		18,259.11

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

**Village South Specific Plan (Proposed)
Los Angeles-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,800.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2788
Regional Shopping Center	58.00	1000sqft	1.29	58,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

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tbVehicleTrips	ST_TR	8.19	3.75
tbVehicleTrips	ST_TR	94.36	63.99
tbVehicleTrips	ST_TR	49.97	10.74
tbVehicleTrips	SU_TR	6.07	6.16
tbVehicleTrips	SU_TR	5.86	4.18
tbVehicleTrips	SU_TR	1.05	0.69
tbVehicleTrips	SU_TR	131.84	78.27
tbVehicleTrips	SU_TR	5.95	3.20
tbVehicleTrips	SU_TR	72.16	57.65
tbVehicleTrips	SU_TR	25.24	6.39
tbVehicleTrips	WD_TR	6.59	5.83
tbVehicleTrips	WD_TR	6.65	4.13
tbVehicleTrips	WD_TR	11.03	6.41
tbVehicleTrips	WD_TR	127.15	65.80
tbVehicleTrips	WD_TR	8.17	3.84
tbVehicleTrips	WD_TR	89.95	62.64
tbVehicleTrips	WD_TR	42.70	9.43
tbWoodstoves	NumberCatalytic	1.25	0.00
tbWoodstoves	NumberCatalytic	48.75	0.00
tbWoodstoves	NumberNoncatalytic	1.25	0.00
tbWoodstoves	NumberNoncatalytic	48.75	0.00
tbWoodstoves	WoodstoveDayYear	25.00	0.00
tbWoodstoves	WoodstoveDayYear	25.00	0.00
tbWoodstoves	WoodstoveWoodMass	999.60	0.00
tbWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	RDG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3600e-003	0.4141	0.0817	0.4958	0.1786	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2681
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418,655.4	1,418,655.4	0.1215	0.0000	1,421.6925
2023	0.5190	3.2960	4.7678	0.0147	0.8487	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342,441.2	1,342,441.2	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2657	6.0000e-004	0.0221	6.3900e-003	0.0285	6.9700e-003	5.9700e-003	0.0118	0.0000	44.8355	44.8355	7.8300e-003	0.0000	44.8311
Maximum	4.1592	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418,655.4	1,418,655.4	0.1215	0.0000	1,421.6925

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2.1 Overall Construction

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3600e-003	0.4141	0.0817	0.4958	0.1786	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.8509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418,655.0	1,418,655.0	0.1215	0.0000	1,421.6921
2023	0.5190	3.2860	4.7678	0.0147	0.8487	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342,440.9	1,342,440.9	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2857	5.0000e-004	0.0221	5.3500e-003	0.0285	5.9700e-003	5.9700e-003	0.0118	0.0000	44.8354	44.8354	7.8300e-003	0.0000	44.8311
Maximum	4.1592	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418,655.0	1,418,655.0	0.1215	0.0000	1,421.6921

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOx (tons/quarter)	Maximum Mitigated ROG + NOx (tons/quarter)
1	9-1-2021	11-30-2021	1.4091	1.4091
2	12-1-2021	2-28-2022	1.3329	1.3329
3	3-1-2022	5-31-2022	1.1499	1.1499
4	6-1-2022	8-31-2022	1.1457	1.1457
5	9-1-2022	11-30-2022	1.1415	1.1415
6	12-1-2022	2-28-2023	1.0278	1.0278
7	3-1-2023	5-31-2023	0.9868	0.9868
8	6-1-2023	8-31-2023	0.9831	0.9831

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9	9-1-2023	11-30-2023	0.9798	0.9798
10	12-1-2023	2-29-2024	2.8757	2.8757
11	3-1-2024	5-31-2024	1.8188	1.8188
		Highest	2.8757	2.8757

2.2 Overall Operational
Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	H2O	CO2e
	(ton/yr)										(MT/yr)					
Area	5.1437	0.2960	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5935
Energy	0.1398	1.2312	0.7770	7.8200e-003		0.0986	0.0986		0.0986	0.0986	0.0000	3.8950732	3.8950732	0.1303	0.0488	3,915.2633
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.9559	2.0895	0.0639	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0192
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	596.6420	596.8052	3.0183	0.0755	683.7567
Total	6.8692	8.5223	30.3407	0.0914	7.7979	0.2260	8.0240	2.0895	0.2219	2.3114	236.9712	12,294.1807	12,531.1519	15.7904	0.1260	12,663.4751

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Ares	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0986	0.0986		0.0986	0.0986	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	15.1834	0.0821	7.7979	0.0560	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4988	7,620.4988	0.3407	0.0000	7,620.0192
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2911	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	566.6420	565.8052	3.0183	0.0755	693.7567
Total	6.8692	9.5223	30.3407	0.0914	7.7979	0.2260	8.0240	2.0895	0.2219	2.3114	236.9712	12,294.1807	12,531.1519	15.7904	0.1260	12,963.4751

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/6/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.38
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NSio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OffRoad	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	0.0475	0.4716	0.3235	5.8000e-004	0.0496	0.0233	0.0729	7.5100e-003	0.0216	0.0291	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601

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3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.9000e-004	3.5400e-003	1.9000e-004	4.1300e-003	1.0900e-003	1.8000e-004	1.2900e-003	0.0000	17.4586	17.4586	1.2100e-003	0.0000	17.4989
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.0800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.8000e-004	0.0000	1.5291	1.5291	5.0000e-005	0.0000	1.5293
Total	2.6500e-003	0.0639	0.0299	2.9000e-004	5.6200e-003	2.9000e-004	5.8200e-003	1.5300e-003	1.9000e-004	1.7200e-003	0.0000	18.9847	18.9847	1.2600e-003	0.0000	19.0161

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3660
Total	0.0475	0.4716	0.3235	5.8000e-004	0.0496	0.0233	0.0729	7.5100e-003	0.0216	0.0291	0.0000	51.0011	51.0011	0.0144	0.0000	51.3660

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3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.9000e-004	3.5400e-003	1.9000e-004	4.1300e-003	1.0900e-003	1.8000e-004	1.2900e-003	0.0000	17.4586	17.4586	1.2100e-003	0.0000	17.4989
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.0800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.8000e-004	0.0000	1.5291	1.5291	5.0000e-005	0.0000	1.5293
Total	2.6500e-003	0.0639	0.0299	2.0900e-004	5.6200e-003	2.0900e-004	5.8200e-003	1.5300e-003	1.9000e-004	1.7200e-003	0.0000	18.9847	18.9847	1.2600e-003	0.0000	19.0161

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1907	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.9000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	0.0389	0.4050	0.2115	3.9000e-004	0.1807	0.0204	0.2011	0.0993	0.0188	0.1181	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061

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3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.8000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	5.9000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.8000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7080
Total	0.0389	0.4050	0.2115	3.8000e-004	0.1807	0.0204	0.2011	0.0993	0.0188	0.1181	0.0000	33.4357	33.4357	0.0108	0.0000	33.7080

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3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.8000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	5.9000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.8000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0798	0.8819	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	0.0798	0.8819	0.5867	1.1800e-003	0.1741	0.0377	0.2118	0.0693	0.0347	0.1040	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776

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3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-002	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	1.2200e-002	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0798	0.8819	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	0.0798	0.8819	0.5867	1.1800e-003	0.1741	0.0377	0.2118	0.0693	0.0347	0.1040	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775

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3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-002	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1380	0.1017	2.2000e-004	5.7200e-003	5.7200e-003	5.7200e-003	5.2600e-003	5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	8.1700e-003	0.0000	19.2414
Total	0.0127	0.1380	0.1017	2.2000e-004	0.0807	5.7200e-003	0.0885	0.0180	5.2600e-003	0.0233	0.0000	19.0871	19.0871	8.1700e-003	0.0000	19.2414

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3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4580
Total	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1380	0.1017	2.2000e-004	5.7200e-003	5.7200e-003	5.7200e-003	5.2600e-003	5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	5.1700e-003	0.0000	19.2414
Total	0.0127	0.1380	0.1017	2.2000e-004	0.0807	5.7200e-003	0.0885	0.0180	5.2600e-003	0.0233	0.0000	19.0871	19.0871	5.1700e-003	0.0000	19.2414

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3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4580
Total	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4580

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tans/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881

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3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.8981	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2184	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7618	0.2007	5.7400e-003	0.2065	0.0000	683.6936	683.6936	0.0187	0.0000	684.4604
Total	0.3578	1.9125	2.9812	0.0119	0.8698	9.4100e-003	0.8790	0.2336	8.7800e-003	0.2424	0.0000	1,105.9771	1,105.9771	0.0451	0.0000	1,107.1039

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tans/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877

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3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.8981	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2184	2.5233	7.3500e-003	0.7557	8.2300e-003	0.7618	0.2007	5.7400e-003	0.2065	0.0000	683.6936	683.6936	0.0187	0.0000	684.4604
Total	0.3578	1.9125	2.9812	0.0119	0.8696	3.4100e-003	0.8790	0.2336	8.7800e-003	0.2424	0.0000	1,105.9771	1,105.9771	0.0451	0.0000	1,107.1939

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814

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3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.8466
Total	0.3177	1.4420	2.6646	0.0112	0.8490	7.3700e-003	0.8564	0.2281	6.8500e-003	0.2349	0.0000	1,042.5294	1,042.5294	0.0392	0.0000	1,043.5090

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0581	0.0000	287.9811
Total	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0581	0.0000	287.9811

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3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.8466
Total	0.3177	1.4429	2.6645	0.0112	0.8490	7.3700e-003	0.8564	0.2281	6.8500e-003	0.2349	0.0000	1,042.5294	1,042.5294	0.0392	0.0000	1,043.5099

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Off-Road	6.7100e-003	0.0963	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7100e-003	0.0963	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227

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3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.8000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.8000e-004	1.0000e-005	2.0000e-004	0.0000	0.8156	0.8156	2.0000e-005	0.0000	0.8160
Total	2.8000e-004	1.8000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.8000e-004	1.0000e-005	2.0000e-004	0.0000	0.8156	0.8156	2.0000e-005	0.0000	0.8160

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Off-Road	6.7100e-003	0.0863	0.0948	1.5000e-004		3.3200e-003	3.3200e-003	3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	0.0000	13.1227
Paving	0.0000					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7100e-003	0.0863	0.0948	1.5000e-004		3.3200e-003	3.3200e-003	3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	0.0000	13.1227

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3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.8000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.8000e-004	1.0000e-005	2.0000e-004	0.0000	0.8156	0.8156	2.0000e-005	0.0000	0.8160
Total	2.8000e-004	1.8000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.8000e-004	1.0000e-005	2.0000e-004	0.0000	0.8156	0.8156	2.0000e-005	0.0000	0.8160

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004	5.1500e-003	5.1500e-003	5.1500e-003	4.7400e-003	4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0109	0.1048	0.1609	2.5000e-004	5.1500e-003	5.1500e-003	5.1500e-003	4.7400e-003	4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073

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3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004	5.1500e-003	5.1500e-003	5.1500e-003	4.7400e-003	4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0109	0.1048	0.1609	2.5000e-004	5.1500e-003	5.1500e-003	5.1500e-003	4.7400e-003	4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073

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3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005	1.0700e-003	1.0700e-003	1.0700e-003	1.0700e-003	1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	4.1404	0.0213	0.0317	5.0000e-005	1.0700e-003	1.0700e-003	1.0700e-003	1.0700e-003	1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745

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3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-002	4.9300e-003	0.0598	1.9000e-004	0.0208	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	7.4800e-002	4.9300e-003	0.0598	1.9000e-004	0.0208	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	4.1404	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745

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3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	ton/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-002	4.9300e-003	0.0598	1.9000e-004	0.0208	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	7.4800e-002	4.9300e-003	0.0598	1.9000e-004	0.0208	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	toms/yr										MT/yr					
Mitigated	1.5857	7.8862	19.1834	0.0821	7.7979	0.0680	7.8659	2.0895	0.0539	2.1434	0.0000	7,620,498.6	7,620,498.6	0.3407	0.0000	7,628,018.2
Unmitigated	1.5857	7.8862	19.1834	0.0821	7.7979	0.0680	7.8659	2.0895	0.0539	2.1434	0.0000	7,620,498.6	7,620,498.6	0.3407	0.0000	7,628,018.2

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4,075.50	13,660,065	13,660,065
General Office Building	268.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.90	2,673.52	2,817.72	3,413,937	3,413,937
Hotel	192.00	187.50	180.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-MW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	66	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	66	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	18.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6365
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6366
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

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5.2 Energy by Land Use - Natural Gas

Unmitigated

Land Use	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30813e+007	0.0704	0.6018	0.2561	9.6400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	488450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.8000e-004	25.1488
High Turnover Sit Down Restaurant	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1500e-003	445.9498
Hotel	1.74095e+006	8.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.96608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	88.5138	88.5138	1.8900e-003	1.8100e-003	89.0963
Regional Shopping Center	91640	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.8009	4.8009	9.0000e-005	8.0000e-005	4.8301
Total		0.1398	1.2212	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4268	1,383.4268	0.0265	0.0254	1,391.6478

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5.2 Energy by Land Use - Natural Gas
Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30813e+007	0.0704	0.6018	0.2561	9.6400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	488450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.8000e-004	25.1488
High Turnover Sit Down Restaurant	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1500e-003	445.9498
Hotel	1.74095e+006	8.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.96608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5138	98.5138	1.8900e-003	1.8100e-003	99.0963
Regional Shopping Center	91640	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.8009	4.8009	9.0000e-005	9.0000e-005	4.8301
Total		0.1398	1.2212	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4268	1,383.4268	0.0265	0.0254	1,391.6478

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	KWh/yr	M/yr			
Apartments Low-Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid-Rise	3,84697e+006	1,257,587	0.0518	0.0107	1,262,086
General Office Building	584550	186,2502	7.6900e-003	1.5900e-003	188,9165
High Turnover (Sit Down Restaurant)	1,28904e+006	506,2022	0.0209	4.3300e-003	509,1135
Hotel	560308	175,3398	7,2400e-003	1,5000e-003	175,9672
Quality Restaurant	353120	112,5116	4,6600e-003	9,6000e-004	112,9141
Regional Shopping Center	756900	240,8778	9,9400e-003	2,0800e-003	241,7395
Total		2,512,646.5	0.1037	0.0215	2,521,635.6

5.3 Energy by Land Use - Electricity

Mitigated

Land Use	Electricity Use KWh/yr	Total CO2	CH4	N2O	CO2e
		M/yr			
Apartments Low-Rise	106910	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid-Rise	3,84697e+006	1,257.5879	0.0518	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	188.9165
High Turnover (Sit Down Restaurant)	1,59894e+006	506.2022	0.0209	4.3300e-003	509.1135
Hotel	560308	175.3398	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6600e-003	9.6000e-004	112.9141
Regional Shopping Center	756900	240.8778	9.9400e-003	2.0800e-003	241.7395
Total		2,512.6465	0.1037	0.0215	2,521.6336

6.0 Area Detail

6.1 Mitigation Measures Area

Village South Specific Plan (Proposed) - Los Angeles-South Coast County Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1169	204.1169	3.6100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1197	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2640
Total	5.1437	0.2950	10.3804	1.6600e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.6100e-003	3.7400e-003	205.3296	
Landscaping	0.3095	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540	
Total	5.1437	0.2950	10.3804	1.5600e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835	

7.0 Water Detail

7.1 Mitigation Measures Water

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	595.8052	3.0193	0.0755	683.7567
Unmitigated	595.8052	3.0193	0.0755	683.7567

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7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62985 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	51.9019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697456	51.2702	0.3580	8.8200e-003	62.9482
Hotel	1.26934 / 0.149927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	3.42827 / 0.154966	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5260	0.1363	3.4200e-003	31.9460
Total		385.8932	3.0183	0.0755	683.7587

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1,62685 / 1,02688	10,9095	0,0535	1,3400e-003	12,6471
Apartments Mid Rise	63,5252 / 40,0485	425,4719	2,0867	0,0523	493,2363
General Office Building	7,99802 / 4,90201	53,0719	0,2627	6,5900e-003	61,9019
High Turnover (Sit Down Restaurant)	10,9272 / 0,69745	51,2702	0,3580	8,8200e-003	62,9482
Hotel	1,26934 / 0,149927	6,1633	0,0416	1,0300e-003	7,5079
Quality Restaurant	2,42827 / 0,154996	11,3534	0,0796	1,9600e-003	13,9953
Regional Shopping Center	4,14806 / 2,54236	27,5260	0,1363	3,4200e-003	31,9490
Total		385,8932	3,0183	0,0755	683,7587

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	Tons	MT/yr			
Apartments Low Rise	11.5	2,3344	0.1380	0.0000	5,7834
Apartments Mid Rise	448.5	91,0415	5,3804	0.0000	225,5613
General Office Building	41.95	8,4952	0,5021	0.0000	21,0484
High Turnover (Sit Down Restaurant)	428.4	98,9913	5,1393	0.0000	215,4430
Hotel	27.38	5,5578	0,3285	0.0000	13,7694
Quality Restaurant	7.3	1,4916	0,0976	0.0000	3,8712
Regional Shopping Center	58.8	11,9359	0,7054	0.0000	29,5706
Total		207,8079	12,2811	0.0000	514,8354

8.2 Waste by Land Use

Mitigated

Land Use	Waste Disposed	Total CO2	CH4	N2O	CO2e
	Tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5613
General Office Building	41.95	8.4952	0.5021	0.0000	21.0484
High Turnover (Sit Down Restaurant)	428.4	98.9913	5.1393	0.0000	215.4430
Hotel	27.38	5.5578	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4916	0.0976	0.0000	3.8712
Regional Shopping Center	59.8	11.9359	0.7054	0.0000	29.5706
Total		207.8979	12.2811	0.0000	514.8354

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Village South Specific Plan (Proposed)
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,800.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2788
Regional Shopping Center	58.00	1000sqft	1.29	58,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

tbVehicleTrips	ST_TR	8.19	3.75
tbVehicleTrips	ST_TR	94.36	63.99
tbVehicleTrips	ST_TR	49.97	10.74
tbVehicleTrips	SU_TR	6.07	6.16
tbVehicleTrips	SU_TR	5.86	4.18
tbVehicleTrips	SU_TR	1.05	0.69
tbVehicleTrips	SU_TR	131.84	78.27
tbVehicleTrips	SU_TR	5.95	3.20
tbVehicleTrips	SU_TR	72.16	57.65
tbVehicleTrips	SU_TR	25.24	6.39
tbVehicleTrips	WD_TR	6.59	5.83
tbVehicleTrips	WD_TR	6.65	4.13
tbVehicleTrips	WD_TR	11.03	6.41
tbVehicleTrips	WD_TR	127.15	65.80
tbVehicleTrips	WD_TR	8.17	3.84
tbVehicleTrips	WD_TR	89.95	62.64
tbVehicleTrips	WD_TR	42.70	9.43
tbWoodstoves	NumberCatalytic	1.25	0.00
tbWoodstoves	NumberCatalytic	48.75	0.00
tbWoodstoves	NumberNoncatalytic	1.25	0.00
tbWoodstoves	NumberNoncatalytic	48.75	0.00
tbWoodstoves	WoodstoveDayYear	25.00	0.00
tbWoodstoves	WoodstoveDayYear	25.00	0.00
tbWoodstoves	WoodstoveWoodMass	999.60	0.00
tbWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	RDG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	8,163,416.6	8,163,416.6	1.9475	0.0000	8,212,103.9
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.8361	10.6616	3.6366	1.5052	5.1421	0.0000	12,493,440.03	12,493,440.03	1.9485	0.0000	12,518,570.7
2023	4.1554	25.7958	38.7467	0.1206	7.0988	0.7592	7.8579	1.8799	0.7136	2.5935	0.0000	12,150,489.00	12,150,489.00	0.9589	0.0000	12,174,461.5
2024	237.0219	9.6478	14.8642	0.0239	1.2171	0.4884	1.7055	0.3229	0.4319	0.4621	0.0000	2,313,180.8	2,313,180.8	0.7198	0.0000	2,331,095.6
Maximum	237.0219	46.4415	40.8776	0.1240	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	12,493,440.03	12,493,440.03	1.9485	0.0000	12,518,570.7

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0536	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	8,163,416.6	8,163,416.6	1.9475	0.0000	8,212,103.9
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.8361	10.6616	3.6366	1.5052	5.1421	0.0000	12,493,440.0	12,493,440.0	1.9485	0.0000	12,518,570.7
2023	4.1554	25.7958	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150,489.0	12,150,489.0	0.9589	0.0000	12,174,461.5
2024	237.0219	9.5478	14.8642	0.0239	1.2171	0.4884	1.7055	0.3229	0.4319	0.4621	0.0000	2,313,180.8	2,313,180.8	0.7198	0.0000	2,331,995.5
Maximum	237.0219	46.4415	40.8776	0.1240	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	12,493,440.0	12,493,440.0	1.9485	0.0000	12,518,570.7
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59 50	18,148.59 50	0.4874	0.3300	19,258.11 92
Energy	0.7960	6.7482	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,365.983 2	8,365.983 2	0.1602	0.1532	8,405.638 7
Mobile	9.8489	45.4304	114.8495	0.4817	45.9582	0.3360	46.2951	12.2950	0.3118	12.6070		50,308.60 34	50,308.60 34	2.1807		50,361.12 08
Total	41.1168	67.2282	207.5497	0.6278	45.9582	2.4626	48.4217	12.2950	2.4385	14.7336	0.0000	76,811.18 16	76,811.18 16	2.8282	0.4832	77,025.87 86

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59 50	18,148.59 50	0.4874	0.3300	19,258.11 92
Energy	0.7960	6.7482	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,365.983 2	8,365.983 2	0.1602	0.1532	8,405.638 7
Mobile	9.8489	45.4304	114.8495	0.4817	45.9582	0.3360	46.2951	12.2950	0.3118	12.6070		50,308.60 34	50,308.60 34	2.1807		50,361.12 08
Total	41.1168	67.2282	207.5497	0.6278	45.9582	2.4626	48.4217	12.2950	2.4385	14.7336	0.0000	76,811.18 16	76,811.18 16	2.8282	0.4832	77,025.87 86

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.38
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NSBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
OffRoad	3.1851	31.4407	21.5850	0.0388		1.5513	1.5513		1.4411	1.4411			3,747.9449	3,747.9449	1.0548	3,774.3174
Total	3.1851	31.4407	21.5850	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419			3,747.9449	3,747.9449	1.0548	3,774.3174

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2689	0.0126	0.2766	0.0732	0.0120	0.0652			1,292.3413	0.0977		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	8.5000e-004	0.1151	0.0303	8.8000e-004	0.0311			117.2799	3.5200e-003		117.3678
Total	0.1760	4.1265	1.3884	0.0121	0.3810	0.0135	0.3946	0.1034	0.0129	0.1163			1,408.5212	0.0912		1,411.3015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000		3,747.9449	1.0549		3,774.3174
Total	3.1651	31.4407	21.5650	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419	0.0000		3,747.9449	1.0549		3,774.3174

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2689	0.0126	0.2766	0.0732	0.0120	0.0652			1,292.3413	0.0977		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	8.5000e-004	0.1151	0.0303	8.8000e-004	0.0311			117.2799	3.5200e-003		117.3678
Total	0.1760	4.1265	1.3884	0.0121	0.2810	0.0135	0.2946	0.1034	0.0129	0.1163			1,409.5212	0.0912		1,411.8015

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809			3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116			3,685.6569	1.1920		3,715.4573

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1391	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1391	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8909	1.8909	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8909	11.8116	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265			6,007.0434	6,007.0434	1.9428	6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230			6,007.0434	6,007.0434	1.9428	6,055.6134

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0648	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	0.0648	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0648	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003			156.4904
Total	0.0648	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003			156.4904

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	39.8435	29.0415	0.0621	1.6349	1.6349	10.3082	1.5041	1.5041	3.0082			6,011.4105	1.9442		6,060.0158
Total	3.6248	39.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	3.0082			6,011.4105	1.9442		6,060.0158

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5865	0.0000	3.5865			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5865	1.5041	5.1006	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4075	13.2032	3.4341	0.0384	0.9155	0.0248	0.9404	0.2536	0.0297	0.2833		3,896.5482	3,896.5482	0.2236		3,902.1394
Worker	2.4298	1.5074	21.0801	0.0607	8.0992	0.0493	8.1485	1.9163	0.0464	1.9627		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	2.8373	14.7106	24.5142	0.0971	7.0087	0.0741	7.0828	1.8799	0.0691	1.9490		9,939.1067	9,939.1067	0.3933		9,948.6384

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.4075	13.2032	3.4341	0.0384	0.9155	0.0248	0.9404	0.2536	0.0297	0.2833		3,896.5482	3,896.5482	0.2236			3,902.1394
Worker	2.4298	1.5074	21.0801	0.0507	8.0932	0.0493	8.1425	1.9163	0.0464	1.9627		6,042.5585	6,042.5585	0.1697			6,046.8000
Total	2.8373	14.7106	24.5142	0.0971	7.0087	0.0741	7.0828	1.8799	0.0691	1.9490		9,939.1067	9,939.1067	0.3933			9,948.9384

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079			2,570.4091
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079			2,570.4091

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0478	6.1411	1.9163	0.0441	1.9604		5,821.4028	5,821.4028	0.1529		5,826.2254
Total	2.5807	11.3809	22.5017	0.0936	7.0088	0.0595	7.0682	1.8799	0.0552	1.9350		9,595.2799	9,595.2799	0.3511		9,604.0554

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6078		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6078		2,570.4061

Village South Specific Plan (Proposed) – Los Angeles-South Coast County, Summer

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.8156	0.0116	0.8271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0992	0.0478	6.1471	1.8163	0.0441	1.8604		5,821.4028	5,821.4028	0.1529		5,826.2254
Total	2.5807	11.3809	22.5017	0.0936	7.0088	0.0595	7.0682	1.8799	0.0552	1.9350		9,595.2799	9,595.2799	0.3511		9,604.0554

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	8.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	0.0427	0.0255	0.3633	1.0900e-003	0.1141	8.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		108.0866
Total	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		108.0866

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310			2,207,547.2	2,207,547.2	0.7140	2,225,396.3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310			2,207,547.2	2,207,547.2	0.7140	2,225,396.3

Village South Specific Plan (Proposed) – Los Angeles-South Coast County, Summer

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207,547.2	2,207,547.2	0.7140		2,225,396.3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207,547.2	2,207,547.2	0.7140		2,225,396.3

Village South Specific Plan (Proposed) – Los Angeles-South Coast County, Summer

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

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Village South Specific Plan (Proposed) – Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	8.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126,758.3	1,126,758.3	0.0280		1,127,458.5
Total	0.4296	0.2481	3.6098	0.0113	1.2171	8.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126,758.3	1,126,758.3	0.0280		1,127,458.5

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0609	0.0609		0.0609	0.0609			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

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Village South Specific Plan (Proposed) – Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	8.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126,758.3	1,126,758.3	0.0280		1,127,468.5
Total	0.4296	0.2481	3.6098	0.0113	1.2171	8.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126,758.3	1,126,758.3	0.0280		1,127,468.5

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	8.9489	45.4304	114.8466	0.4917	45.9692	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60	50,306.60	2.1607		60,361.12
Unmitigated	8.9489	45.4304	114.8466	0.4917	45.9692	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60	50,306.60	2.1607		60,361.12

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4,075.50	13,660,065	13,660,065
General Office Building	268.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.90	2,673.52	2,617.72	3,413,937	3,413,937
Hotel	192.00	167.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-MW	Primary	Diverged	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	66	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	66	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	18.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7860	8.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355,983.2	8,355,983.2	0.1602	0.1532	8,405,638.7
NaturalGas Unmitigated	0.7860	8.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355,983.2	8,355,983.2	0.1602	0.1532	8,405,638.7

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - Natural Gas

Unmitigated

Land Use	Natural Gas Use kBtu/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBtu/yr	t/day										t/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0436	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.6200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2878	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9335
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.9900e-003	2.7700e-003	151.8894
High Turnover Sit Down Restaurant	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.8342	2,677.8342	0.0613	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3828	2.9100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4859	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	596.5659
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		0.7660	6.7463	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.8387

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - Natural Gas

Mitigated

Land Use	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	t/day										t/day					
Apartments Low Rise	1,11916	0.0121	0.1031	0.0439	6.6000e-004	8.3400e-003	8.3400e-003	8.3400e-003	8.3400e-003	8.3400e-003	8.3400e-003	131.8862	131.8862	2.5200e-003	2.4100e-003		132.4486
Apartments Mid Rise	35,7843	0.3859	3.2878	1.4033	0.0211	0.2666	0.2666	0.2666	0.2666	0.2666	0.2666	4,209.9164	4,209.9164	0.0807	0.0772		4,234.9335
General Office Building	1,26342	0.0138	0.1258	0.1057	7.5000e-004	9.5600e-003	9.5600e-003	9.5600e-003	9.5600e-003	9.5600e-003	9.5600e-003	150.9911	150.9911	2.9900e-003	2.7700e-003		151.8894
High Turnover Sit Down Restaurant	22,7599	0.2455	2.2314	1.8743	0.0134	0.1696	0.1696	0.1696	0.1696	0.1696	0.1696	2,677.8342	2,677.8342	0.0613	0.0491		2,693.5460
Hotel	4,78972	0.0514	0.4676	0.3828	2.8100e-003	0.0355	0.0355	0.0355	0.0355	0.0355	0.0355	561.1436	561.1436	0.0108	0.0103		564.4782
Quality Restaurant	5,95775	0.0545	0.4859	0.4165	2.9800e-003	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377	595.0298	595.0298	0.0114	0.0109		598.5659
Regional Shopping Center	0,251616	2.7100e-003	0.0247	0.0207	1.5000e-004	1.8700e-003	1.8700e-003	1.8700e-003	1.8700e-003	1.8700e-003	1.8700e-003	29.6019	29.6019	5.7000e-004	5.4000e-004		29.7778
Total		0.7660	6.7463	4.2573	0.0418	0.5292	0.5292	0.5292	0.5292	0.5292	0.5292	8,355.9832	8,355.9832	0.1602	0.1532		8,405.8387

6.0 Area Detail

6.1 Mitigation Measures Area

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192
Unmitigated	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6600	14.1000	6.0000	0.0800		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5960	148.5960	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192

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Village South Specific Plan (Proposed) – Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2870					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.8500	14.1000	8.0000	0.0500		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,108.9650
Landscaping	2.4755	0.8489	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		162.1542
Total	30.5020	15.0495	88.4430	0.0914		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Village South Specific Plan (Proposed)
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,800.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2788
Regional Shopping Center	58.00	1000sqft	1.29	58,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

tbVehicleTrips	ST_TR	8.19	3.75
tbVehicleTrips	ST_TR	94.36	63.99
tbVehicleTrips	ST_TR	49.97	10.74
tbVehicleTrips	SU_TR	6.07	6.16
tbVehicleTrips	SU_TR	5.86	4.18
tbVehicleTrips	SU_TR	1.05	0.69
tbVehicleTrips	SU_TR	131.84	78.27
tbVehicleTrips	SU_TR	5.95	3.20
tbVehicleTrips	SU_TR	72.16	57.65
tbVehicleTrips	SU_TR	25.24	6.39
tbVehicleTrips	WD_TR	6.59	5.83
tbVehicleTrips	WD_TR	6.65	4.13
tbVehicleTrips	WD_TR	11.03	6.41
tbVehicleTrips	WD_TR	127.15	65.80
tbVehicleTrips	WD_TR	8.17	3.84
tbVehicleTrips	WD_TR	89.95	62.64
tbVehicleTrips	WD_TR	42.70	9.43
tbWoodstoves	NumberCatalytic	1.25	0.00
tbWoodstoves	NumberCatalytic	48.75	0.00
tbWoodstoves	NumberNoncatalytic	1.25	0.00
tbWoodstoves	NumberNoncatalytic	48.75	0.00
tbWoodstoves	WoodstoveDayYear	25.00	0.00
tbWoodstoves	WoodstoveDayYear	25.00	0.00
tbWoodstoves	WoodstoveWoodMass	999.60	0.00
tbWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	RDG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4066	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154,337.7	6,154,337.7	1.9472	0.0000	6,203,016.6
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.8361	10.6616	3.6366	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8948	37.5031	0.1162	7.0988	0.7698	7.8685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9817	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0299	1.2171	0.4884	1.7055	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.8627
Maximum	237.0656	46.4460	39.6338	0.1195	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2821	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154,337.7	6,154,337.7	1.9472	0.0000	6,203,018.6
2022	4.7966	38.8851	39.6338	0.1195	18.255	1.8361	10.4616	3.6366	1.5052	5.1421	0.0000	12,035,344.0	12,035,344.0	1.9482	0.0000	12,060.6013
2023	4.3939	25.8948	37.5031	0.1162	7.0988	0.7698	7.8685	1.8799	0.7142	2.5940	0.0000	11,710,408.0	11,710,408.0	0.9817	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0299	1.2171	0.4884	1.7055	0.3229	0.4319	0.4621	0.0000	2,307,051.7	2,307,051.7	0.7164	0.0000	2,324.8627
Maximum	237.0656	46.4460	39.6338	0.1195	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	12,035,344.0	12,035,344.0	1.9482	0.0000	12,060.6013
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192
Energy	0.7960	6.7482	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,365.9832	8,365.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	46.9914	110.0422	0.4691	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	40.7912	67.7872	202.7424	0.6043	45.9592	2.4640	48.4231	12.2950	2.4399	14.7349	0.0000	74,422.3787	74,422.3787	2.8429	0.4832	74,637.4417

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192
Energy	0.7960	6.7482	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,365.9832	8,365.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	46.9914	110.0422	0.4691	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	40.7912	67.7872	202.7424	0.6043	45.9592	2.4640	48.4231	12.2950	2.4399	14.7349	0.0000	74,422.3787	74,422.3787	2.8429	0.4832	74,637.4417

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.38
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NSBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
OffRoad	3.1851	31.4407	21.5850	0.0388		1.5513	1.5513		1.4411	1.4411			3,747.9449	3,747.9449	1.0548	3,774.3174
Total	3.1851	31.4407	21.5850	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419			3,747.9449	3,747.9449	1.0548	3,774.3174

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.1304	4.1454	1.0192	0.0117	0.2689	0.0128	0.2797	0.0732	0.0122	0.0654		1,269,865.5	1,269,865.5	0.0908			1,272,125.2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0532	0.0348	0.3963	1.1100e-003	0.1141	8.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110,470.7	110,470.7	3.3300e-003			110,553.9
Total	0.1835	4.1800	1.4144	0.0128	0.3810	0.0137	0.3948	0.1034	0.0131	0.1165		1,380,326.2	1,380,326.2	0.0941			1,382,679.1

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000				0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747,944.9	3,747,944.9	1.0549			3,774,317.4
Total	3.1651	31.4407	21.5650	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419	0.0000	3,747,944.9	3,747,944.9	1.0549			3,774,317.4

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0192	0.0117	0.2689	0.0128	0.2797	0.0732	0.0122	0.0654			1,269,865.5	0.0908		1,272,125.2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0532	0.0348	0.3963	1.1100e-003	0.1141	8.5000e-004	0.1151	0.0303	8.8000e-004	0.0311			110,470.7	3.3300e-003		110,553.9
Total	0.1835	4.1800	1.4144	0.0128	0.3810	0.0137	0.3948	0.1034	0.0131	0.1165			1,380,326.2	0.0941		1,382,679.1

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809			3,685,656.9	1.1920		3,715,457.3
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116			3,685,656.9	1.1920		3,715,457.3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1368	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5648	132.5648	3.9900e-003		132.6648
Total	0.0638	0.0415	0.4755	1.3300e-003	0.1368	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5648	132.5648	3.9900e-003		132.6648

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1368	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5648	132.5648	3.9900e-003		132.6648
Total	0.0638	0.0415	0.4755	1.3300e-003	0.1368	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5648	132.5648	3.9900e-003		132.6648

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5865	0.0000	3.5865			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.8853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5865	1.8265	5.4230		6,007.0434	6,007.0434	1.9428		6,055.6134

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0708	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0708	0.0482	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	0.0709	0.0482	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	39.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041			6,011.4105	6,011.4105	1.9442	6,060.0158
Total	3.6248	39.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006			6,011.4105	6,011.4105	1.9442	6,060.0158

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0685	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	0.0685	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5865	0.0000	3.5865			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5865	1.5041	5.1006	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	Ibiday										Ibiday					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0685	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	0.0685	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	Ibiday										Ibiday					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612			2,554,333.6	2,554,333.6	0.6120	2,569,632.2
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612			2,554,333.6	2,554,333.6	0.6120	2,569,632.2

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0258	0.9412	0.2536	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0293
Worker	2.6620	1.8677	19.4899	0.0571	8.0932	0.0483	8.1425	1.9163	0.0464	1.9617		5,891.9354	5,891.9354	0.1602		5,895.9408
Total	3.0904	14.8350	23.2704	0.0926	7.0087	0.0741	7.0836	1.8799	0.0699	1.9498		9,481.0104	9,481.0104	0.3984		9,486.9691

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.9156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0258	0.9412	0.2536	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0293
Worker	2.6620	1.8677	19.4899	0.0571	8.0932	0.0483	8.1425	1.9163	0.0464	1.9617		5,891.9354	5,891.9354	0.1602		5,895.9408
Total	3.0904	14.8350	23.2704	0.0926	7.0087	0.0741	7.0836	1.8799	0.0699	1.9498		9,481.0104	9,481.0104	0.3984		9,486.9891

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4091
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4091

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3193	8.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671,400	3,671,400	0.2096		3,675,641
Worker	2.5028	1,5073	17,8820	0.0550	6.0992	0.0478	6.1411	1.9163	0.0441	1.9604		5,483,797	5,483,797	0.1442		5,487,402
Total	2.8211	11,4799	21,2591	0.0893	7,0082	0.0601	7,0688	1,8799	0.0557	1,9356		9,155,198	9,155,198	0.3538		9,161,043

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	MBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14,3849	16,2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555,209	2,555,209	0.6079		2,570,406
Total	1.5728	14,3849	16,2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555,209	2,555,209	0.6079		2,570,406

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.3193	8.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096			3,675.6417
Worker	2.5028	1.5073	17.8820	0.0550	6.0992	0.0478	6.1411	1.9163	0.0441	1.9604		5,483.7974	5,483.7974	0.1442			5,497.4020
Total	2.8211	11.4799	21.2591	0.0893	7.0088	0.0601	7.0688	1.8799	0.0557	1.9356		9,155.1981	9,155.1981	0.3538			9,164.0437

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140			2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140			2,225.4336

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0488	0.0282	0.3348	1.0300e-003	0.1141	8.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	0.0488	0.0282	0.3348	1.0300e-003	0.1141	8.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584	2,207.584	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584	2,207.584	0.7140		2,225.4336

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0489	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	0.0489	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207,547.2	2,207,547.2	0.7140		2,225,396.3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207,547.2	2,207,547.2	0.7140		2,225,396.3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207,547.2	2,207,547.2	0.7140		2,225,396.3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000				0.0000		0.0000
Total	0.9892	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207,547.2	2,207,547.2	0.7140		2,225,396.3

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0609	0.0609		0.0609	0.0609			0.0000			0.0000
Off-Road	0.1809	3.2189	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	236.5923	3.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	8.4300e-003	1.2266	0.3228	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	0.4734	0.2743	3.3220	0.0107	1.2171	8.4300e-003	1.2266	0.3228	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	MBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0609	0.0609		0.0609	0.0609			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	8.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	0.4734	0.2743	3.3220	0.0107	1.2171	8.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,025.75	3,773.25	4,075.50	13,660,065	13,660,065
General Office Building	268.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)		2,673.52		3,413,937	3,413,937
Hotel	192.00	167.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-MW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	66	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	66	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	18.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7860	8.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355,983.2	8,355,983.2	0.1602	0.1532	8,405,638.7
NaturalGas Unmitigated	0.7860	8.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355,983.2	8,355,983.2	0.1602	0.1532	8,405,638.7

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - Natural Gas

Unmitigated

Land Use	Natural Gas Use kBtu/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBtu/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0436	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.6200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2878	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9335
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.9900e-003	2.7700e-003	151.8894
High Turnover Sit Down Restaurant	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.8342	2,677.8342	0.0613	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3828	2.9100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4859	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	596.5659
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		0.7660	6.7463	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.8387

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - Natural Gas

Mitigated

Land Use	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	t/day										t/day					
Apartments Low Rise	1,11916	0.0121	0.1031	0.0439	6.6000e-004	8.3400e-003	8.3400e-003	8.3400e-003	8.3400e-003	8.3400e-003	8.3400e-003	131.8862	131.8862	2.5200e-003	2.4100e-003		132.4486
Apartments Mid Rise	35,7843	0.3859	3.2878	1.4033	0.0211	0.2666	0.2666	0.2666	0.2666	0.2666	0.2666	4,209.9164	4,209.9164	0.0807	0.0772		4,234.9335
General Office Building	1,26342	0.0138	0.1258	0.1057	7.5000e-004	9.5600e-003	9.5600e-003	9.5600e-003	9.5600e-003	9.5600e-003	9.5600e-003	150.9911	150.9911	2.9900e-003	2.7700e-003		151.8894
High Turnover Sit Down Restaurant	22,7599	0.2455	2.2314	1.8743	0.0134	0.1696	0.1696	0.1696	0.1696	0.1696	0.1696	2,677.8342	2,677.8342	0.0613	0.0491		2,693.5460
Hotel	4,78972	0.0514	0.4676	0.3828	2.8100e-003	0.0355	0.0355	0.0355	0.0355	0.0355	0.0355	561.1436	561.1436	0.0108	0.0103		564.4782
Quality Restaurant	5,95775	0.0545	0.4859	0.4165	2.9800e-003	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377	595.0298	595.0298	0.0114	0.0109		598.5659
Regional Shopping Center	0,251616	2.7100e-003	0.0247	0.0207	1.5000e-004	1.8700e-003	1.8700e-003	1.8700e-003	1.8700e-003	1.8700e-003	1.8700e-003	29.6019	29.6019	5.7000e-004	5.4000e-004		29.7778
Total		0.7660	6.7463	4.2573	0.0418	0.5292	0.5292	0.5292	0.5292	0.5292	0.5292	8,355.9832	8,355.9832	0.1602	0.1532		8,405.8387

6.0 Area Detail

6.1 Mitigation Measures Area

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192
Unmitigated	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6600	14.1000	6.0000	0.0800		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5960	148.5960	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0844		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,258.1192

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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2870					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.8500	14.1000	8.0000	0.0500		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.00	18,000.00	0.3450	0.3300	18,108.96
Landscaping	2.4755	0.8489	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		162.1542
Total	30.5020	15.0496	88.4430	0.0014		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59	18,148.59	0.4874	0.3300	18,259.11

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Attachment C

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	17%

EXHIBIT B

The entirety of Exhibit
B is considered
Comment O

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SOIL WATER AIR PROTECTION ENTERPRISE
 2656 29th Street, Suite 201
 Santa Monica, California 90405
 Attn: Paul Rosenfeld, Ph.D.
 Mobil: (310) 795-2335
 Office: (310) 452-5555
 Fax: (310) 452-5550
 Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Principal Environmental Chemist

Chemical Fate and Transport & Air Dispersion Modeling

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE), 2003 to present; Principal and Founding Partner
 UCLA School of Public Health, 2007 to 2011; Lecturer (Assistant Researcher)
 UCLA School of Public Health, 2003 to 2006; Adjunct Professor
 UCLA Environmental Science and Engineering Program, 2002-2004; Doctoral Intern Coordinator
 UCLA Institute of the Environment, 2001-2002; Research Associate
 Komex H₂O Science, 2001 to 2003; Senior Remediation Scientist
 National Groundwater Association, 2002-2004; Lecturer
 San Diego State University, 1999-2001; Adjunct Professor
 Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
 Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
 Bechtel, San Diego, California, 1999 - 2000; Risk Assessor
 King County, Seattle, 1996 - 1999; Scientist
 James River Corp., Washington, 1995-96; Scientist
 Big Creek Lumber, Davenport, California, 1995; Scientist
 Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
 Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*, 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. *Journal of Real Estate Research*, 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.**, Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermid and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste*. Amsterdam: Elsevier Publishing.

Cheremisnoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*, 113-125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*, 73(6), 34-46.

Cheremisnoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries*. Amsterdam: Elsevier Publishing.

Cheremisnoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*, Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution*, 123 (17), 319-327.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities*. Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellow, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office, Publications Clearinghouse (MS-6)*, Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*, 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and P. **Rosenfeld**. (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tucson, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tucson, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florida, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion. *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M. (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington.

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

Rosenfeld, P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

Rosenfeld, P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998) Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering. February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington. Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

- In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs*, vs. United States Metals Refining Company et al. *Defendant*.
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition: 6-7-2019
- In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs*, vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido"
Defendant.
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition: 5-9-2019
- In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019
- In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19
- In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018
- In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosociences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017
- In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017
- In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017
- In The Superior Court of the State of California, For The County of Los Angeles
Warm Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trial 8-28-2018
- In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs*, vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

- In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017
- In The Superior Court of the State of California, County of Alameda
Charles Spain, Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015
- In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015
- In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No.: LALA105144 - Division A
Rosenfeld Deposition, August 2015
- In The Iowa District Court For Wapello County
Doug Pauls, et al., et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No.: LALA105144 - Division A
Rosenfeld Deposition, August 2015
- In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action No. 14-C-30000
Rosenfeld Deposition, June 2015
- In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward
DeRuyter, Defendants
Rosenfeld Deposition: July 2015
- In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015
- In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014
- In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City
Landfill, et al. Defendants
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas

Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant*.
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio

John Michael Abicht, et al., *Plaintiffs*, vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division

Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs*, vs. BP Products North America, Inc., *Defendant*.
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland

Philip E. Cyach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, *Defendants*
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

The entirety of Exhibit
C is considered
Comment P

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1640 5th St., Suite 204 Santa
 Santa Monica, California 90401
 Tel: (949) 887-9013
 Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

**Geologic and Hydrogeologic Characterization
 Industrial Stormwater Compliance
 Investigation and Remediation Strategies
 Litigation Support and Testifying Expert
 CEQA Review**

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
 B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
 California Certified Hydrogeologist
 Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H₂O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nationwide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab) and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation. Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.**, 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukunaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993, U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

Response to Comment Letter 8: Western States Regional Council of Carpenters (WSRCC)

- A:** The comment includes introductory materials related to the Draft EIR and the Western States Regional Council of Carpenters that do not require any responses.
- B:** The comment states that the County should require the use of a local workforce to benefit the community's economic development and the environment. The comment provides details, supported by the information included in Exhibits A, B, and C to the comment letter, regarding the environmental benefits of reduced the length of vendor trips, reduced greenhouse gas emissions, and localized economic benefits associated with use of a local workforce. The commenter does not comment on the adequacy of the analysis in the Draft EIR.

As described in Chapter 3, *Project Description* of the Draft EIR, it is anticipated that the construction workforce would commute to the site each day from local communities. Construction staff not drawn from the local labor pool would stay in local hotels in Rosamond, Mojave, Lancaster, or other local communities. Use of a local workforce and/or housing of a workforce in local hotels would provide the environmental benefits and localized economic benefits addressed in the comment letter. Further, Mitigation Measure MM 4.14-5 requires the project operator submit a letter detailing the hiring efforts prior to commencement of construction, which encourages all contractors of the project site to hire at least 50 percent of their workers from local Kern County communities. The project operator must provide the contractors a list of training programs that provide skilled workers and shall require the contractor to advertise locally for available jobs, notifying the training programs of job availability, all in conjunction with normal hiring practices of the contractor. This mitigation measure further encourages the use of a local workforce. No changes to the EIR are required to address the comment.

- C:** The comment states that the County should impose training requirements for the project's construction activities to prevent community spread of COVID-19 and other infectious diseases. The commenter does not comment on the adequacy of the analysis in the Draft EIR.

Section 4.3, Air Quality has been revised to include Mitigation Measure MM 4.3-8, requiring a COVID-19 Health and Safety Plan:

Section 4.3, Air Quality, Page 4.3-18

Coronavirus Disease 2019

Coronavirus Disease 2019 (COVID-19) is a new disease, caused by a novel (or new) human coronavirus that has not previously been seen in humans. The first known case of COVID-19 was confirmed in the United States on January 20, 2020 (Holshue, et al, 2020). There are many types of human coronaviruses, including some that commonly cause mild upper-respiratory tract illnesses. COVID-19 is a respiratory illness that can spread from person to person. According to the Center for Disease Control (CDC), older adults and people who have severe underlying medical conditions like heart or lung disease or diabetes seem to be at higher risk for developing more serious complications from COVID-19 illness. Symptoms may appear 2 to 14 days after the exposure to the virus and may include, but are not limited to: fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting, and diarrhea (CDC, 2021a). According to the CDC, COVID-19 is believed to spread between people who are in close contact with one

another (within about 6 feet) through respiratory droplets produced when an infected person coughs, sneezes, or talks (CDC, 2021b). COVID-19 research and causality is still in the beginning stages. A nationwide study by Harvard University found a linkage between long term exposure to PM_{2.5} (averaged from 2000 to 2016) as air pollution and statistically significant increased risk of COVID-19 death in the United States (Harvard, 2020). Though COVID-19 remains a concern world-wide, the national public health emergency declaration regarding COVID-19 ended on May 11, 2023.

Section 4.3, Air Quality, Page 4.3-52

The project's construction emissions would not exceed the EKAPCD's thresholds except for particulate matter. This exceedance would occur on some days during the approximately 28 months of construction and would not be an ongoing operational issue. The short duration of exceedance is unlikely to result in chronic adverse health impacts. Further, models designed to determine health impacts from air pollution generally look at long-term exposures, making them not particularly informative of health impacts from short-term exposures such as would be experienced by people residing in the vicinity of a construction site. The project proposes the construction and operation of a large-scale utility solar project that would require dust-generating construction activities such as pile-driving, mowing, and grading, over a large area. During construction, the project would implement Mitigation Measures MM 4.3-1 through MM 4.3-7 to reduce the project's regional and localized health effects associated with criteria air pollutants, particularly particulate matter; however, the exact reduction from implementation of these mitigation measures cannot be quantified given existing scientific constraints. As such, the impacts are conservatively considered to be significant and unavoidable.

Since COVID-19 is understood to spread as result of close, person-to-person contact, especially within poorly ventilated indoor spaces, the likelihood of emissions from the proposed project directly increasing the spread of COVID-19 is remote. However, a nationwide study by Harvard University found a linkage between long term exposure to PM_{2.5} as air pollution and statistically significant increased risk of COVID-19 death in the United States (Harvard, 2020). Though construction dust suppression measures would be implemented as a requirement of Mitigation Measure MM 4.3-2, exposure to dust during construction could still occur which could increase the severity of the disease project employees and nearby residents to COVID-19 should they contract it. However, the vaccines for COVID-19 drastically reduce the likelihood of hospitalization, much less death, as a result of contracting COVID-19. In spite of a readily available COVID-19 vaccine supply in the United States, the COVID-19 pandemic is on-going as a result of low vaccination rates and mask compliance by unvaccinated individuals. People of color may also have a higher risk of getting sick or dying from COVID-19 (California Department of Public Health 2020) and may live in areas already burdened by air pollution (NRDC 2014). On-site workers and residents near project activities potentially could be exposed to increased levels of PM_{2.5} from project activities due to the emissions of PM_{2.5} from the project.

Therefore, in addition to implementation of Mitigation Measure MM 4.3-2, the project would implement Mitigation Measure MM 4.3-8, which requires implementation of a COVID-19 Health and Safety Plan in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates. Implementation of Mitigation Measures MM 4.3-2 and MM 4.3-8 would be required to reduce the project's regional and localized health effects associated with criteria air pollutants and COVID-19; however, the exact reduction from implementation of these mitigation measures cannot be quantified given existing scientific constraints. Consequently, the United States COVID-19 national health emergency ended on May 11, 2023, rendering COVID-19 as less of a threat to public health as opposed to the previous three

years. With implementation of MM 4.3-2 and MM 4.3-8, impacts would be less than significant.

Mitigation Measures

Implementation of Mitigation Measures **MM 4.3-1** through **MM 4.3-78** would be required.

MM 4.3-6: Minimize Exposure to Potential Valley Fever-containing Dust. To minimize personnel and public exposure to potential Valley Fever-containing dust on and offsite, the following control measures shall be implemented during project construction:

- a. Equipment, vehicles, and other items shall be thoroughly cleaned of dust before they are moved offsite to other work locations.
 - b. Wherever possible, grading and trenching work shall be phased so that earth-moving equipment is working well ahead or downwind of workers on the ground.
 - c. The area immediately behind grading or trenching equipment shall be sprayed with water before ground workers move into the area.
 - d. In the event that a water truck runs out of water before dust is sufficiently dampened, ground workers being exposed to dust shall leave the area until a truck can resume water spraying.
 - e. To the greatest extent feasible, heavy-duty earth-moving vehicles shall be closed-cab and equipped with HEP-filtered air system.
 - f. Workers shall receive training in procedures to minimize activities that may result in the release of airborne *Coccidioides immitis* (CI) spores, to recognize the symptoms of Valley Fever, and shall be instructed to promptly report suspected symptoms of work-related Valley Fever to a supervisor. Evidence of training shall be provided to the Kern County Planning and Natural Resources Department.
 - g. A Valley Fever informational handout shall be provided to all onsite construction personnel. The handout shall, at a minimum, provide information regarding the symptoms, health effects, preventative measures, and treatment. Additional information and handouts can be obtained by contacting the Kern County Public Health Services Department.
 - h. Onsite personnel shall be trained on the proper use of personal protective equipment, including respiratory equipment. National Institute for Occupational Safety and Health–approved respirators shall be provided to onsite personal upon request. When exposure to dust is unavoidable, provide appropriate National Institute for Occupational Safety & Health-approved respiratory protection to affected workers, if necessary. If respiratory protection is deemed necessary, employers must develop and implement a respiratory protection program in accordance with California Division of Occupational Safety and Health's Respiratory Protection standard (8 CCR 5144).

MM 4.3-7: Prior to the issuance of grading permits, a one-time fee shall be paid to the Kern County Public Health Services Department in the amount of \$3,200 for Valley Fever public awareness programs.

MM 4.3-8: At the time of project implementation, a COVID-19 Health and Safety Plan should be prepared in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates. A copy of the COVID-19 Health and Safety Plan shall be submitted to the Kern County Planning and Natural Resources Department for review and approval.

Level of Significance after Mitigation

Criteria Air Pollutants

With implementation of Mitigation Measures MM 4.3-1 through MM 4.3-5, temporary construction and decommissioning impacts would be significant, and unavoidable. Operational impacts would be less than significant.

Valley Fever

With implementation of Mitigation Measures MM 4.3-6 and MM 4.3-7, impacts would be less than significant.

COVID-19 and Other Infectious Diseases

With implementation of Mitigation Measures MM 4.3-1 through MM 4.3-8, the uncertainty of the project's regional and localized health impacts associated with criteria air pollutants, such as PM2.5 along with indirect linkages of criteria pollutants and COVID-19 on vulnerable populations remains, but would be less than significant as a result of concerns over COVID-19 being lessened with the end of the public health emergency related to COVID-19 on May 11, 2023.

- D:** This comment describes the purpose of the California Environmental Quality Act (CEQA) and the function of an EIR. It does not comment on the adequacy of the analysis in the EIR and does not require a response.
- E:** This comment summarizes Section 15088.5(a) of the CEQA Guidelines, including the requirement that an EIR must be recirculated whenever there is disclosure of significant new information. The comment also summarizes the comments included below. The comment is noted and individual responses to each of the summarized comments are provided below.
- F:** The comment states that the Draft EIR fails to adequately provide mitigation for the project's biological resources impacts because it does not comply with CDFW recommendations for nesting birds. Specifically, the comment states that Mitigation Measure MM 4.4-8 defines the nesting season as February 1 – August 31, in conflict with a letter received from CDFW on June 25, 2023 which defined the nesting season as February 1 – September 15.

The comment further states that Mitigation Measure MM 4.4-8 requires the surveys be conducted within 14 days of vegetation clearing, inconsistent with CDFW request to conduct surveys within 10 days of vegetation clearing.

The comment also states that the CDFW letter June 25, 2023 recommends a minimum 250-foot buffer for non-listed bird species and a 500-foot buffer for non-listed raptors whereas Mitigation Measure MM 4.4-8 includes a 100-foot buffer for non-listed bird species and a 300-foot buffer for

non-listed raptors. The comment recommends that Mitigation Measure MM 4.4-8 be revised to be consistent with the buffers recommended by CDFW.

Please see the response to Comment 1-M above.

- G:** The comment states that the Draft EIR fails to adequately mitigate the project's biological resources impacts as a result of artificial outdoor lighting. Specifically, the comment states that the Draft EIR fails to implement any mitigation measures to decrease the impacts of artificial outdoor lighting on wildlife species.

Impact 4.4-1 of the Draft EIR describes potential impacts to wildlife species due to artificial lighting and describes how the proposed project would be required to implement Mitigation Measure MM 4.1- 6 which requires compliance with the Kern County's Dark Skies Ordinance to minimize nighttime lighting in unincorporated areas of Kern County. No changes to the EIR are required to address the comment.

- H:** The comment states that the developer should be responsible for payment of a mitigation fee no less than \$75,000 to a private wildlife conservation organization such as the Audubon Society to mitigate impacts to biological resources.

The comment does not explain why the payment of \$75,000 to a private wildlife conservation organization would mitigate project impacts, nor does the comment address the adequacy of the analysis in the Draft EIR. Further, the County does not have the authority to require funding be provided to private organizations. The Draft EIR includes all feasible mitigation measures to address impacts to biological resources. No changes to the EIR have been made to address the comment.

- I:** The comment states that the Draft EIR does not provide substantial evidence that batteries will be properly disposed at the time of project decommissioning. The Draft EIR states that batteries will be hauled offsite and recycled or disposed of "at an appropriate location in accordance with applicable hazardous waste requirements."

The Draft EIR correctly and adequately describes the process for disposal of batteries at the time of decommissioning. Under normal operations, energy storage facilities do not store or generate hazardous materials in quantities that would represent a risk to offsite receptors and no reportable quantities of acutely or extremely hazardous materials will be transported, stored, or used at the site. However, the Draft EIR acknowledges that batteries may be considered hazardous waste in California when they are discarded and, accordingly, the recycling and disposal process would comply with applicable hazardous waste requirements at that time, or in accordance with manufacturer specifications. The County may rely on applicable regulations designed to ensure that the batteries would be disposed of properly to determine that impacts would be less than significant. No changes to the EIR are required to address the comment.

- J:** The comment states that the Draft EIR improperly defers mitigation in Mitigation Measure MM 4.10-1 requiring preparation of a SWPPP prior to issuance of a grading permit because the mitigation measure does not include the specific BMPs, including erosion control measures, that would be implemented.

Mitigation Measure MM 4.10-1 does not defer mitigation for the following reasons: as stated in Section 15126.4 of the CEQA Guidelines, "specific details of a mitigation measure, however, may

be developed after project approval when it is impractical or infeasible to include those details during the project's environmental review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will be considered, analyzed, and potentially incorporated in the mitigation measure." Subsequent action under the mitigation framework is appropriate where the mitigation measure sets out criteria and performance standards to gauge success.

In this case, the SWPPP will be developed at the time that construction-level design is available and in accordance with Section 402 of the Clean Water Act which authorizes the State Water Resources Control Board (SWRCB) to issue a National Pollution Discharge Elimination System General Construction Storm Water Permit for a project provided that the project develop and implement a SWPPP. Mitigation Measure MM 4.10-1 correctly and adequately relies on the performance standards set out in Section 402 of the Clean Water Act to effectively mitigate the impact. MM 4.10-1 also lists a variety of BMPs which may be included in the SWPPP to address erosion control, including but not limited to minimizing vegetation removal; implementing sediment controls, including silt fences as necessary; installing a stabilized construction entrance/exit and stabilization of disturbed areas; covering stockpiled soils to prevent wind erosion; and restoring all erosion control devices to working order to the satisfaction of the Kern County Planning and Natural Resources Department and/or Kern County Public Works Department after each rainfall run-off. Further, SWPPPs rely on a standardized set of guidelines and requirements established by the EPA and SWRCB, all of which are designed to address erosion control. No changes to the EIR are required to address the comment.

K: The comment states that the Draft EIR improperly defers mitigation in Mitigation Measure MM 4.10-2 requiring preparation of a hydrology study and drainage plan prior to issuance of a grading permit because it does not explain why preparation of such a study and plan was not possible at the time of publication of the Draft EIR.

A preliminary drainage plan has been prepared and is included in Appendix J of the Draft EIR. A Hydrology Study and Drainage Plan are typically prepared when project design has progressed to nearly final design. This more-detailed level of project design is not required to adequately analyze environmental impacts under CEQA.

As discussed in the response to comment "J" above, the Draft EIR does not defer mitigation. Mitigation Measure MM 4.10-2 (1) commits the project to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will be considered, analyzed, and potentially incorporated in the mitigation measure. Specifically, the hydrology study and drainage plan must comply with the Kern County Development Standards and the Kern County Code of Building Regulations and must include a numerical stormwater model for the project site that evaluates existing and proposed (with project) drainage conditions during storm events ranging up to the 100-year event; a discussion of the potential for erosion and sedimentation in light of modeled changes in stormwater flow across the project area that would result from project implementation; engineering recommendations to be incorporated into the project design and applied within the site boundary, which include measures to offset increases in stormwater runoff that would result from the project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion,

sedimentation, and flooding onsite or offsite; and a specification that the final design of the solar arrays shall include one foot of freeboard clearance above the calculated maximum flood depths for the solar arrays or the finished floor of any permanent structures. Accordingly, the mitigation measure includes performance standards and potential designed to address hydrology and drainage impacts. No changes to the EIR have been made to address the comment.

- L.** The comment states that the project requires numerous zone changes, general plan amendments, and specific plan amendments and that the Draft EIR does not adequately analyze the consistency of such land use changes with the County's General Plan. The commenter does not identify any General Plan inconsistencies which would result in significant environmental impacts, nor does the commenter explain why the zone changes or plan amendments would result in any internal General Plan, specific plan, or zoning inconsistencies. Nor would any the proposed changes result in significant environmental impacts that have not already been disclosed in this EIR or result in internal inconsistencies within the County's planning documents.

As discussed in Section 4.11, *Land Use* of the EIR, the proposed project would require approval of Zone Change Case No. 60, Map 196; Zone Change Case No. 61, Map 196; Zone Change Case No. 3, Map 195 and Map No 212; Zone Change Case No. 62, Map 196; and Zone Change Case No. 4, Map 195 to rezone various parcels to A or A H, with the exception of those parcels which are already in the A Zone District. With the requested zone change, the entirety of the project would be zoned A (Exclusive Agriculture). The project would require approval of CUP No. 62, Map 196; CUP No. 63, Map 196; CUP No. 2, Map 195; CUP No. 64, Map 196; CUP No. 65, Map 196; CUP No. 3, Map 195; CUP No. 6, Map 212, and CUP No. 20, Map 197 to allow for the construction and operation of a solar facility and associated infrastructure, including energy storage, under this zoning. The project would also require Specific Plan Amendment (SPA) No. 34, Map 196 of the Mojave Specific Plan to redesignate various parcels to 8.5 (Resources Management); SPA No. 35, Map 196 to the Circulation Element of the Mojave Specific to remove future road reservations on section and mid-section lines within the project boundary; and SPA No. 4, Map 212 to the West Edwards Road Settlement to redesignate various parcels to 8.5 (Resources Management). Additionally, the Project would include General Plan Amendment No. 3, Map 212 to the Circulation Element of the Kern County General Plan to remove future road reservations on section and mid-section lines within the project boundary.

These zone changes and plan amendments are included as part of the project, as described in Chapter 3, *Project Description*, and therefore the environmental impacts of such changes and amendments are analyzed throughout the Draft EIR. As evaluated in detail in Table 4.11-2, *Consistency Analysis with Kern County General Plan for Land Use*, Table 4.11-3, *Consistency Analysis with the Mojave Specific Plan for Land Use*, Table 4.11-4, *Consistency Analysis with the West Edwards Road Settlement Specific Plan for Land Use*, and Table 4.11-5, *Consistency Analysis with the Soledad Mountain Elephant Butte Specific Plan for Land Use*, the project is consistent with the goals and policies of the Kern County General Plan, Mojave Specific Plan, the West Edwards Road Settlement Specific Plan, and the Soledad Mountain Elephant Butte Specific Plan. Further, with approval of the Zone Change Cases and approval of a CUP for each Zone Map in the project area per Sections 19.12.030 G and 19.14.030 G of the Kern County Zoning Ordinance, the project would be consistent with the Exclusive Agriculture zoning classification, which allows solar facilities as a permitted use with a CUP. Because the project's zoning classifications are consistent with current Kern County Zoning Ordinance land use designations which allow solar development

with a CUP, the project would be consistent with the zoning classification with this discretionary approval. No changes to the EIR are required to address this comment.

- M:** The comment provides a summary of the comments detailed above and does not require additional response.
- N:** The comment comprises Exhibit A, included to provide additional documentation in support of Comment “B” above. Please see the response to Comment “B.”
- O:** The comment comprises Exhibit B, included to provide additional documentation in support of Comment “B” above. Please see the response to Comment “B.”
- P:** The comment comprises Exhibit C, included to provide additional documentation in support of Comment “B” above. Please see the response to Comment “B.”

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Comment Letter 9: Center for Biological Diversity and Defenders of Wildlife



January 5, 2024

Alexis Brito, Planner I
Kern County Planning and Natural Resources Department
2700 M Street, Suite 100
Bakersfield, California 93301
Delivered via email to: BritoAL@kerncounty.com

RE: Draft Environmental Impact Report – Enterprise Solar Storage Project by Enterprise Solar Storage, LLC (SCH 2023050214)

Dear Mr. Brito,

Thank you for the opportunity to provide comments in response to the Draft Environmental Impact Report (DEIR) for the proposed Enterprise Solar Storage Project (Project). These scoping comments are submitted on behalf of the Center for Biological Diversity (Center) and Defenders of Wildlife (Defenders).

A

The Center is a non-profit environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. These scoping comments are submitted on behalf of the Center’s 1.7 million staff, members and online activists throughout California and the western United States many of whom live in southern California and enjoy visiting, studying, photographing and hiking in the Antelope Valley, including the areas around the proposed project.

B

Defenders has 2.1 million members and supporters in the United States, 316,000 of which reside in California. Defenders is dedicated to protecting all wild animals and plants in their natural communities. To that end, Defenders employs science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions to prevent the

extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

Our conservation organizations strongly support the development of renewable energy production. A low-carbon energy future is critical for California – for our economy, our communities, and the environment. Achieving this future—and *how* we achieve it—is critical for protecting California’s internationally treasured wildlife, landscapes and diverse habitats. We believe transitioning to a renewable energy future need not exacerbate the ongoing extinction crisis by thoughtfully planning projects while protecting habitat critical to species.

B

Project Description

The proposed Project is a photovoltaic solar facility that would generate up to 600 MW and provide 1,000 MW of battery energy storage. The Project is proposed on approximately 2,320 acres of private land along the western edge of the Antelope Valley in unincorporated Kern County. It is directly south of the community of Mojave and 9.5 miles southwest of the unincorporated community of California City. The proposed Project site consists of four non-continuous solar sites on 149 privately owned parcels.

C

Comments

We offer the following comments on the DEIR for the proposed Project:

1. Project Objectives

The Center and Defenders previously submitted joint scoping comments in response to the Notice of Preparation of a DEIR that included the recommendation to remove the stated Project objective to utilize vacant land with limited water for a renewable energy project. We reiterate our previous comments and object to the inclusion of the objective, which remains within the DEIR. Project alternative analysis adheres to project objectives, and an overly narrow objective limits the consideration of reasonable alternatives. This limiting objective has resulted in an insufficient and flawed alternative analysis.

D

The DEIR explicitly states that all alternatives were eliminated from further consideration since they did not meet project objectives or were infeasible. The alternative site scenario states it would likely be located in western Antelope Valley and concludes that any alternative site in that region would likely have similar project and cumulative impacts on biological resources. The objective focusing on utilizing vacant land with limited water coupled with the objective of providing green jobs to Kern County ensures the Project will be built in the desert region of the County. Removing the vacant land with limited water condition would allow for the analysis of an alternative site outside the desert region.

Specifically, it would enable analysis to be conducted for an alternative site on retired farmland in accordance with the Sustainable Groundwater Management Act. This type of alternative site location would have the ability to lessen project and cumulative biological impacts significantly.

D

As mentioned in our previous comments, there is precedent from several previous CEQA legal cases that have found project objectives to be overly narrow and, therefore, limited the reasonable alternatives proposed within the EIR. This includes *We Advocate through Environmental Review v. County of Siskiyou*¹, where the Court found the overly narrow project objectives limited the scope of the alternatives analysis. The Court cited *Citizens of Goleta Valley v. Board of Supervisors*², which states, “One of [an EIR’s] major functions...is to ensure that all reasonable alternatives to proposed projects are thoroughly assessed by the responsible official.” To ensure adequate alternative analysis that adheres to legal precedent, we request the limitation of “vacant land” with limited water within Kern County be removed from the Project objectives.

2. Inadequate Surveys

The proposed Project site may provide habitat for special-status species; yet several species-specific protocol-level surveys were either not conducted or were inadequate. Findings cannot be made without species-specific protocol-level surveys as they are necessary to provide thorough and accurate results that support informed decision-making and enable the identification of appropriate avoidance and mitigation measures for each species.

E

a. Burrowing Owl

The Draft Wildlife Report states that only a habitat assessment was conducted for burrowing owl (BUOW) with no protocol-level surveys. Given the report states the Project site contains suitable habitat for BUOW and biologists incidentally recorded observations of BUOW during the field survey, it is perplexing that no species-specific protocol-level surveys were conducted. We request conducting protocol-level surveys that adhere to the *Burrowing Owl Survey Protocol and Mitigation Guidelines*³ and the *Staff Report on Burrowing Owl Mitigation*⁴.

F

¹ *We Advocate Through Environmental Review v. County of Siskiyou*. (April 20, 2022) 78 Cal.App.5th 683.

² *Citizens of Goleta Valley v. Board of Supervisors*. (1990) 52 Cal.3d 553, 565.

³ California Burrowing Owl Consortium. 1993. *Burrowing Owl Survey Protocol and Mitigation Guidelines*.

⁴ California Department of Fish and Game. 2012. *Staff Report on Burrowing Owl Mitigation*.

b. Crotch’s Bumble Bee

Crotch’s bumble bee (CBB) is a candidate species for listing under the California Endangered Species Act and, as such, must be accorded protection as if they were listed. The DEIR acknowledges the Project is located within CBB’s general distribution and contains suitable habitat. Despite the potential for the species, no CBB-specific surveys were conducted and the species occurrence was not determined. We request CBB surveys be conducted in accordance with the California Department of Fish and Wildlife’s (CDFW) methods as outlined in *Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species*.⁵

G

c. Desert Tortoise

The DEIR states biologists conducted Mojave desert tortoise (DT) protocol-level surveys on 2,159 acres in April 2021 and another 104 acres, which included the temporary laydown yards and areas added to the proposed Project site in May 2022. The Supplemental Wildlife Memorandum states an additional DT protocol-level survey was conducted within the last year, April 2023. However, this survey did not cover the entirety of the site, as only 61.8 acres were surveyed. US Fish and Wildlife Service’s (USFWS) guidance states that if survey data is over a year old, the project proponent should contact USFWS to assess the circumstances under which the data was collected to determine whether additional surveys would be appropriate.⁶ The DEIR fails to mention any discussions with USFWS to determine if the surveys are valid. We request surveys be conducted within one year prior to ground disturbance for the entirety of the project site to determine presence of DT.

H

The proposed project area is identified by the United States Geological Survey’s (USGS) modeling as habitat for the threatened Mojave DT.⁷ Records for DT have been documented in the general project area.⁸ Based on DT physiology, the west

⁵ California Department of Fish and Wildlife. 2023. *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species*.

⁶ US Fish and Wildlife Service. 2019. *Preparing for any action that may occur within the range of the Mojave desert tortoise (Gopherus agassizii)*.

⁷ Nussear, Kenneth E., Todd C. Esque, Richard D. Inman, Leila Gass, Kathryn A. Thomas, Cynthia SA Wallace, Joan B. Blainey, David M. Miller, and Robert H. Webb. 2009. *Modeling Habitat of the Desert Tortoise (Gopherus Agassizii) in the Mojave and Parts of the Sonoran Deserts of California, Nevada, Utah, and Arizona*. US Geological Survey.

⁸ California Department of Fish and Wildlife. 2023. *California Natural Diversity Database*. Accessed 12-2023.

Mojave area has been modeled to be one of only two refugia for DT in California as the effects of climate change proceed.⁹ In order to aid recovery of the Mojave DT, it is imperative habitat be conserved. The federal Recovery Plan for DT states:

“Recovery Objective 3 (Habitat). Ensure that habitat within each recovery unit is protected and managed to support long-term viability of desert tortoise populations.

Recovery Criterion 3. The quantity of desert tortoise habitat within each desert tortoise conservation area is maintained with no net loss until tortoise population viability is ensured. When parameters relating habitat quality to tortoise populations are defined and a mechanism to track these parameters established, the condition of desert tortoise habitat should also be demonstrably improving.” emphasis added.¹⁰

H

USFWS most recent five-year review¹¹ indicates that within the West Mojave Recovery unit in the tortoise conservation areas, the density of DT ranges from 2.4-3.6 adult tortoises/km². However, densities needed to sustain viable population levels are 3.9 adults/km².¹² Clearly, habitat for DT in the west Mojave must be maintained with no net loss until DT populations reach viable population levels. If the project anticipates moving forward, mitigation will be required to ensure that adequate habitat (3 acres conserved for each acre disturbed) be put under permanent conservation with a management endowment.

d. Mohave Ground Squirrel

The Draft Wildlife Report states that no camera or live trapping was conducted for Mohave Ground Squirrel (MGS) on the proposed Project site. Despite this, the species is presumed absent or occurs in low numbers in the vicinity. If no surveys

I

⁹ Sinervo, Barry. 2014. *Prospects for Gopherus: Demographic and Physiological Models of Climate Change from 65 Million Years Ago to the Future*. In Abstracts of Papers and Posters, 35. Ontario, California: Desert Tortoise Council. https://deserttortoise.org/ocr_DTDocs/2014DTCSymposiumAbstracts-OCR.pdf.

¹⁰ U.S. Fish and Wildlife Service. 2011. *Revised Recovery Plan for the Mojave Population of the Desert Tortoise (Gopherus Agassizii)*. Sacramento, California: U.S. Fish and Wildlife Service, Pacific Southwest Region. <https://www.fws.gov/sites/default/files/documents/USFWS.2011.RRP%20for%20the%20Mojave%20Desert%20Tortoise.pdf>.

¹¹ U.S. Fish and Wildlife Service. 2022. *Mojave Desert Tortoise Five-Year Review*. https://www.fws.gov/sites/default/files/documents/2022%20Mojave%20desert%20tortoise%205YR_FINAL.pdf.

¹² Berry, Kristin H., Julie Yee, Lisa Lyren, and Jeremy S. Mack. 2020. *An Uncertain Future for a Population of Desert Tortoises Experiencing Human Impacts*. *Herpetologica* 76 (1): 1–11. <https://doi.org/10.1655/Herpetologica-D-18-00033>.

are conducted to determine presence of a species, it cannot be presumed absent. Surveys must be conducted in accordance with CDFW to determine presence of MGS. If no surveys are conducted, occurrence and take of the species must be presumed, and an Incidental Take Permit (ITP) must be obtained.

I

3. Proposed Mitigation Measures are Inadequate

We provide comments to improve the mitigation measures using the best available science. While many of the proposed Mitigation Measures are standard avoidance and minimization measures that are supportable, we provide comments to improve:

J

a. **MM 4.4-3 a.** We suggest that the daily reports be sent directly to the Wildlife Agencies (USFWS and CDFW).

K

b. **MM 4.4-5.** The surveys for alkali mariposa lily need to be done at the seasonally appropriate time of year to identify the species. Typically, the blooming period occurs from early April through June. Please include that the surveys for the alkali mariposa lily will be done between early April and June in order to accurately detect the species.

L

c. **MM 4.4-5 c.** The mitigation measure proposes “All alkali mariposa lilies that cannot feasibly be avoided in final project design shall have bulbs collected prior to construction.” It needs to clearly identify the disposition of those bulbs. The mitigation measure continues and states “an Alkali Lily Transplantation Plan will be submitted to and approved by the Kern County Planning and Natural Resources Department, prior to ground disturbance and bulb collection.” If this approach is taken, to our knowledge, the County does not retain a botanist/restorationist, and therefore, we recommend that the approval be delegated to the Wildlife Agencies (USFWS and CDFW in conjunction with the California Native Plant Society).

M

However, transplantation of rare plants has a very poor success rate¹³ and is typically not an effective mitigation strategy. If alkali mariposa lilies are to be impacted by the proposed project, the bulbs and seeds should be salvaged and deposited with a reputable seed/bulb bank (ex. California Botanic Garden). Occupied alkali mariposa lily habitat should be acquired for mitigation at a 2:1

¹³ Fiedler, Peggy L. 1991. *Mitigation Related Transplantation, Relocation and Reintroduction Projects Involving Endangered and Threatened and Rare Plant Species In California*. Final Report to California Department of Fish and Game, Endangered Plant Program. CDFG.

ratio of conserved:impacted habitat in order to mitigate the permanent loss of on-site habitat. The lily mitigation habitat could be “nested” within other mitigation-required lands for other species impacted by the project.

M

d. **MM 4.4-6.** The mitigation measure is not well thought out. Some of the species included in the measure are non-migratory (ex. Le Conte’s thrasher, BUOW, loggerhead shrike, desert kit fox) and live continuously on the site. While the mitigation measure states “If evidence of occupation by a special-status species is observed, a suitable buffer shall be established by a qualified biologist that results in sufficient avoidance,” it is unclear how large the buffer will be and if the avoidance will be permanent, particularly if the buffer is within the construction zone. If impacts will ultimately occur, permanent habitat mitigation must occur at a minimum 3:1 ratio of conserved:impacted habitat in order to mitigate the permanent loss of on-site habitat for the impacted special status species. The conserved habitat must support the same species that is/are being impacted on site. A management endowment must be included in order to manage the mitigation lands in perpetuity.

N

e. **MM 4.4-7.** Clarity in the type of fencing being addressed is needed. It reads that there are potentially three types of fencing – 1) construction fencing, 2) post-construction fencing and 3) DT fencing (if needed). Just because surveys have not detected DT on site, does not preclude desert tortoises from coming onto the site. If the goal is to keep DTs off-site during construction and operation, then permanently maintained desert tortoise fencing will be needed to prevent access to the site. The mitigation measure needs to better identify the type of fencing being addressed (including the fencing type, i.e. chain link, stranded barbed wire, etc.).

O

f. **MM 4.4-8 b.** This part of the mitigation measure conflicts with MM 4.4-6 (see above).

P

g. **MM 4.4-9** needs additional definition of terms. For example, in the Table, what are the parameters that define “Level of Disturbance” as Low, Medium and High? Is it the existing conditions, or the anticipated construction disturbance? Please clarify with definitions.

Q

The Table also refers to only nesting sites, but during the non-nesting season, BUOW still use burrows that may or may not be used during nesting. Clarification

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is needed that the mitigation measure buffers are not exclusive to nesting sites only.

As written, only "Burrowing owls should not be excluded from burrows during the breeding season." This non-exclusion from burrows during breeding season needs to be extended to desert kit fox and American badgers.

Q

If relocation is to be used for BUOW, desert kit fox or badger, tracking of the animals for an extended period of time is necessary to evaluate the success of the relocation efforts. Specifically, the mitigation measure needs to be improved based on the site-specific issues with the desired outcomes being survival and subsequent successful reproduction. For burrowing owls in particular, implementing the most recent science on burrowing owl relocation^{14,15} needs to be incorporated into the mitigation measures.

- h. **MM 4.4-10** needs to require a much higher mitigation ratio for Swainson's hawk foraging habitat. SWHA have already been displaced from all of southern California, and the breeding populations of SWHA are tenuously hanging on in the Antelope Valley as the southernmost breeding population in California. With the conversion of open space and agriculture to renewable energy, housing, and industrial warehouses, not only are the breeding sites for SWHA being impacted, but also the foraging areas that support those breeding sites. Therefore, if the proposed project would affect the foraging area for a nearby breeding site, that foraging area must be mitigated at a 2:1 ratio at a minimum, where the conserved foraging area supports at least one breeding site.

R

- i. **MM 4.4-11** addresses MGS, but fails to address the southern grasshopper mouse. Please include a mitigation strategy if the small mammal trapping confirms the presence of southern grasshopper mice on site.

S

¹⁴ Hennessy, Sarah M., Colleen L. Wisinski, Noelle Ronan, Chris Gregory, Ronald R. Swaisgood, and Lisa A. Nordstrom. 2020. *Assessing California's Relocation Guidelines for Burrowing Owls Affected by Renewable Energy Development*. <https://www.energy.ca.gov/publications/2020/assessing-californias-relocation-guidelines-burrowing-owls-affected-renewable>.

¹⁵ Hennessy, S. M., C. L. Wisinski, N. A. Ronan, C. J. Gregory, R. R. Swaisgood, and L. A. Nordstrom. 2022. *Release Strategies and Ecological Factors Influence Mitigation Translocation Outcomes for Burrowing Owls: A Comparative Evaluation*. *Animal Conservation* 25 (5): 614–26. <https://doi.org/10.1111/acv.12767>.

j. **MM 4.4-12** needs to be reconciled with MM 4.4-9, which also proposes buffers and timelines for badger and kit foxes. **T**

k. **MM 4.4-16 d.** The duration of the monitoring of avian injury and mortality must be at a minimum of five years. Avian mortalities are known to be ongoing at solar facilities during operation,¹⁶ and the effects of the mortalities are widespread and had population-level effects.¹⁷ In order to adequately evaluate the impacts from solar projects on avian species, a robust monitoring effort must be implemented. Additionally, a mitigation strategy to offset impacts to avian species needs to be included in this mitigation measure. We recommend adhering to mitigation strategies for operational impacts outlined in *Industrial-Scale Solar Projects and Birds in the California Desert*.¹⁸ **U**

l. **Impact 4.4.4** The analysis of impact is flawed. The proposed project will indeed “impede the use of native wildlife nursery sites” because within the acreage of the proposed project site(s), some native wildlife is successfully reproducing, or there wouldn’t be any wildlife on site. Destroying wildlife habitat will impede the use of native wildlife nursery sites. The destruction of functional wildlife habitat requires mitigation, as discussed above. **V**

4. Incidental Take Permits

The DEIR states if avoidance of the nests is not feasible for CBB, consultation with CDFW is required for obtaining an ITP and compliance with all avoidance, minimization and compensatory mitigation requirements set forth in an ITP. However, there is no mention for the requirement of consulting with CDFW or USFWS for obtaining ITPs for other special status species, such as DT, MGS and SWHA. We recommend consultation with the appropriate wildlife agencies to determine the need to obtain an ITP for DT, MGS and SWHA. **W**

¹⁶ Smallwood, K. Shawn. 2022. *Utility-Scale Solar Impacts to Volant Wildlife*. The Journal of Wildlife Management 86 (4): e22216. <https://wildlife.onlinelibrary.wiley.com/doi/full/10.1002/jwmg.22216>

¹⁷ Conkling, Tara J., Hannah B. Vander Zanden, Taber D. Allison, Jay E. Diffendorfer, Thomas V. Dietsch, Adam E. Duerr, Amy L. Fesnock, et al. 2022. *Vulnerability of Avian Populations to Renewable Energy Production*. Royal Society Open Science 9 (3): 211558. <https://doi.org/10.1098/rsos.211558>

¹⁸ Cooper, Daniel S. 2016. *Industrial-Scale Solar Projects and Birds in the California Desert: Assessing Impacts & Developing Mitigation*.

5. Key Plans Are Not Provided

Many of the mitigation measures require plans that are not provided for public review. Plans that need to be published as part of the public environmental review documents include:

- Habitat Mitigation and Monitoring Plan (MM 4.4-19)
- Worker Environmental Awareness Training Program (MM 4.4-2)
- Joshua Tree Preservation Plan (MM 4.4-13) – because Joshua trees are documented on site.
- Raven Management Plan (MM 4.4-14) – because ravens are documented on site.
- Avian Mortality Monitoring Program (MM 4.4-16) – because birds are documented on site.

X

Whereas other plans are contingent upon specific resources being identified on site in the future, these plans will need to be written independent of future identification of on-site resources. We request that these plans be available to the interested public for comment prior to the release of the Final EIR.

6. Cumulative Impacts

The DEIR acknowledges that the proposed Project is located in an area with several proposed, existing and permitted energy projects, including the Catalina Solar, Edwards Solar, RE Camelot Solar, RE Columbia Two Solar, RE Columbia Three Solar, RE Rio Grande Solar, Rosamond One, Rosamond Two, Sanborn Solar, SEPV Solar and Windhub Solar projects. Given the amount of development occurring in the Antelope Valley, there are large and significant cumulative impacts. We are particularly concerned with the cumulative impact on SWHA and MGS. As we mentioned in our previous comments, the cumulative impact of renewable projects on SWHA within the region is already evident with the loss of foraging and nesting habitat. The majority of the existing and proposed renewable energy projects within eastern Kern County are immediately adjacent to, or surrounding, existing occupied or active nest trees. A soon-to-be-published analysis on the impacts of solar development within the Antelope Valley on SWHA found over 13,661 acres of SWHA foraging habitat within 5 miles of active nests has been lost due to solar development within the region.¹⁹

Y

The Project is also located within the range of MGS. The most significant cause of decline for the species is habitat loss from a variety of development, including renewable

¹⁹ Aardahl, J. and Markowska, S. 2023. (Unpublished data). *Swainson’s Hawk Habitat Loss from Solar Projects in the Antelope Valley, California*.

energy.²⁰ It is estimated that up to 25% of the MGS range could be considered currently threatened directly by development.²¹

Despite the threat to both SWHA and MGS, the cumulative impacts analysis fails to analyze in any meaningful way the impact to habitat. We recommend a robust cumulative impact analysis at the individual resource level. Additionally, CDFW, within their NOP comments, stated that staff is available for consultation. We recommend consultation with CDFW to identify an acceptable methodology to evaluate cumulative impacts at the resource level.

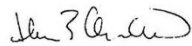
Y

Conclusion

Thank you once again for the opportunity to provide comments on the DEIR for the proposed Enterprise Solar Storage Project and for considering our comments. We look forward to reviewing the Habitat Mitigation and Monitoring Plan, Worker Environmental Awareness Training Program, Joshua Tree Preservation Plan, Raven Management Plan, Avian Mortality Monitoring Plan and the Final EIR. We request to be notified when they are available for viewing. If you have any questions, please contact us via the contact information below.

Z

Respectfully submitted,



Ilene Anderson
 Center for Biological Diversity
 Senior Scientist/California Desert Director
landerson@Biologicaldiversity.org



Sophia Markowska
 Defenders of Wildlife
 Senior California Representative
Smarkowska@Defenders.org

²⁰ California Department of Fish and Wildlife. 2019. *A Conservation Strategy for the Mohave Ground Squirrel Xerospermophilus mohavensis*. Sacramento, California. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=171301&inline>.

²¹ Defenders of Wildlife, Desert Tortoise Preserve Committee, Inc., Mohave Ground Squirrel Conservation Council and Dr. Phillip Leitner. 2023. *Petition to List the Mohave Ground Squirrel (Xerospermophilus mohavensis) as Threatened Under the Endangered Species Act*.

Response to Comment Letter 9: Center for Biological Diversity and Defenders of Wildlife

- A:** The comment states that the letter is written on behalf of the Center for Biological Diversity (Center) and the Defenders of Wildlife (Defenders) and does not require a response.
- B:** The comment includes introductory information for the Center and Defenders and does not require a response.
- C:** The comment provides a summary of the project description and does not require a response.
- D:** The comment states that the Center and Defenders object to the project objective to utilize vacant land with limited water for a renewable energy project because it presents too narrow of an objective for analysis of reasonable alternatives.

The project includes this objective because developed land would not be suitable for a utility-scale solar and energy storage project and land with ample water supplies could be more appropriately used for agriculture or other high-water demand uses. The objective is appropriate. Additionally, the commenter incorrectly states that that all alternatives were eliminated from further consideration since they did not meet project objectives or were infeasible. Rather, the Draft EIR considered and rejected three alternatives, the wind energy alternative, the industrial power alternative, and the alternative site alternative, and carried forward for further analysis four other alternatives, including the no project alternative.

The commenter also suggests that the alternative site alternative was improperly rejected as a result of the project objective described above and that an alternative site on retired farmland would reduce biological impacts. However, the commenter does not explain why its proposed alternative site would reduce impacts, especially considering that much of the project site is itself former agricultural land. Further, the alternative site alternative in the Draft EIR notes that the Western Antelope Valley has attracted renewable energy development on vacant land or “land with a history of agricultural uses.” Thus, this alternative already considers the potential for retired farmland. The Draft EIR eliminated this alternative for multiple reasons, including that alternative project sites in the area are likely to have similar project and cumulatively significant impacts after mitigation, including cumulatively significant impacts to aesthetics, air quality, biological resources, and wildfire; alternative sites for the project are not considered to be “potentially feasible,” as there are no suitable sites within the control of the project proponent that would reduce significant project impacts; and because the potential amount of available similar sites is further reduced because unlike the project, alternative sites may not be within proximity to transmission infrastructure. When avoidance areas such as dense residential lots, high slope areas as well as existing development are considered in relation to distance from interconnection to the grid, there are very few open sites that can support larger scale solar storage development. Accordingly, the Draft EIR properly analyzes project alternatives. No changes to the EIR have been made to address this comment.

- E:** The comment states that biological surveys for the project were inadequate and introduces a series of species-specific comments that are addressed individually in the responses that follow below.
- F:** The comment recommends surveys for BUOW following CDFW’s 2012 Staff Report on Burrowing Owl Mitigation.

Please see the response to Comment 1-J, above.

- G:** The comment recommends surveys for CBB following CDFW's Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species.

Please see the response to Comment 1-G, above.

- H:** The comment recommends the project proponent consult with CDFW regarding the need for additional desert tortoise surveys on the project site.

Please see the response to Comment 1-F, above.

The comment also recommends that impacts to desert tortoise habitat should be mitigated at a 3:1 ratio, based on the commenter's review of the USGS modeling for desert tortoise habitat. However, as described in the Draft EIR, the project site is located at the western edge of desert tortoise range. Although suitable desert tortoise habitat is present in the project site, most of the project site has been heavily grazed by domestic sheep which reduces the quality of suitable habitat. Due to absence of live tortoise occurrence on the project site and its position at the periphery of the species' current range, and the quality of immediately surrounding habitats as well as the abundance of suitable habitat to the east of the project site where the largest primary population in the Mojave Desert is located, the loss of up to 2,320 acres of poor quality habitat is considered less than significant and mitigation is not required.

- I:** The comment states that MGS surveys are appropriate and if surveys are not conducted, an ITP for MGS is recommended.

Please see the response to Comment 1-D, above.

- J:** The comment introduces a series of comments recommending changes to mitigation measures that are addressed individually in the responses that follow below.

- K:** The comment recommends that Mitigation Measure MM 4.4-3(a) be revised to require daily preconstruction survey reports be sent directly to the wildlife agencies (USFWS and CDFW).

Mitigation Measure MM 4.4-3(a) states that "daily reports of these inspections shall be retained by the Lead Biologist and provided to the Kern County Planning and Natural Resources Department, U.S. Fish and Wildlife Service, or California Department Fish and Wildlife upon request." No changes are required to the EIR to address this comment.

- L:** The comment recommends revising Mitigation Measure 4.4-5 to state the surveys for the alkali mariposa lily will be done between early April and June in order to accurately detect the species.

Mitigation Measure MM 4.4-5 requires the project proponent conduct pre-construction botanical surveys to verify the location of alkali mariposa lily in the vicinity of the location where the species was potentially identified during botanical surveys and in potentially affected areas within 200 feet of that location. If alkali mariposa lilies are observed during the survey, appropriate measures are required to avoid impacts on the species to the extent feasible.

Preconstruction surveys are required in order to observe and document the specific locations of resources that may require avoidance or other mitigation immediately preceding construction. Should construction be scheduled to occur outside of the early April to June time period, it is appropriate for the surveys to be done at that time. No changes to the EIR are required to address this comment.

M: The comment recommends that if an Alkali Lily Transplantation Plan is required, it be reviewed by USFWS and CDFW in conjunction with the California Native Plant Society rather than Kern County Planning and Natural Resources Department. The comment further recommends that if alkali mariposa lilies are to be impacted by the proposed project, the bulbs and seeds be salvaged and deposited with a seed/bulb bank such as the California Botanic Garden, and that occupied alkali mariposa lily habitat be acquired for mitigation at a 2:1 ratio at an offsite location.

As the lead agency, Kern County has the discretion and authority to review and approve the Alkali Lily Transplantation Plan, should one be required, and will take the recommendations for bulb and seed salvage methodology under consideration at the time such a plan is reviewed. The Plan, if one is required, will require a replacement ratio and success standard of 1:1 for impacted individuals. No further mitigation is required and no changes to the EIR are required to address this comment. Please also see the response to Comment 1-L above.

N: The comment recommends that special-status buffer distances and timelines for maintenance of buffers, should those buffers be required, be specified in Mitigation Measure MM 4.4-6.

Mitigation Measure MM 4.4-6 and MM 4.4-20, collectively, require preconstruction surveys be conducted as appropriate for desert tortoise, burrowing owl, desert kit fox, Swainson's hawk, loggerhead shrike, Le Conte's thrasher, and migratory birds, and that the surveys should follow USFWS and/or the CDFW survey protocol guidelines, where appropriate. If evidence of occupation by a special-status species is observed, a suitable buffer would be required to be established by a qualified biologist that results in sufficient avoidance.

The buffer distances and timing would be determined by a qualified biologist to avoid impacts to the species. Buffers for specific species are defined in other applicable mitigation measures, see MM 4.4-8, MM 4.4-9, MM 4.4-10, MM 4.4-12, or will be established in consultation with resource agencies, see MM 4.4-11. The commenter provides no support for the requested 3:1 mitigation ratio, nor does the commenter explain why it should apply to all special status species. The Draft EIR includes appropriate mitigation based on species- and site-specific considerations, as described in Section 4.4. No changes to the EIR are required to address this comment.

O: The comment states that fencing included as part of the project with the purpose of excluding desert tortoise from the site should be specified to be permanently maintained desert tortoise fencing.

Please see the response to Comment 1-F above.

P: The comment states that the provision in Mitigation Measure MM 4.4-8(b) that nesting bird surveys are not required outside of the nesting season is in conflict with Mitigation Measure MM 4.4-6 which requires preconstruction surveys for special-status species.

Mitigation Measure MM 4.4-6 requires preconstruction surveys within 14 days of the start of construction for special status species regardless of time of year. This does not conflict with focused surveys for nesting birds during the nesting season. No changes to the EIR are required to address this comment.

Q: The comment states that the conditions for implementation of BUOW buffers during low, medium, or high levels of disturbance require additional definition. The comment further states that relocation of DKF and American badger should be specified to occur outside the breeding season. The comment also recommends relocated BUOW, DKF, and American badger be tracked over

time to determine relocation success.

The BUOW nesting site buffers and disturbance levels are consistent with the requirements of CDFW's 2012 Staff Report on Burrowing Owl Mitigation. Please refer to that document for additional information.

Mitigation Measure MM 4.4-12 discusses passive relocation of DKF and American badger, consistent with CDFW's 2011 Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance.

Please also refer to responses to Comments 1-I and 1-J above. No changes to the EIR are required to address this comment.

R: The comment recommends a 2:1 mitigation ratio for SWHA foraging habitat.

Please refer to the response to Comment 1-E above.

S: The comment states that a mitigation strategy is required in the case that Southern grasshopper mouse is observed onsite.

Mitigation Measure MM 4.4-11 requires preconstruction surveys for Southern grasshopper mouse. Mitigation Measure MM 4.4-6 more generally requires preconstruction surveys for special-status species within the project site, as well as within a minimum of 500 feet (152 meters) from the project site, and if evidence of occupation by a special-status species is observed, a suitable buffer that results in sufficient avoidance would be required to be established by a qualified biologist. The mitigation strategy in Mitigation Measure MM 4.4-6 applies to Southern grasshopper mouse and all other special-status wildlife species and no changes are required to the EIR to address the comment.

T: The comment recommends the buffer distances in Mitigation Measures MM 4.4-9 and MM 4.4-12 be reconciled.

Please refer to the response to Comment 1-I above.

U: The comment recommends avian mortality monitoring occur over a period of 5 years commencing with the operation and maintenance phase of the project.

Mitigation Measure 4.4-16(e) requires that if after 1 year of monitoring, project impacts to any avian species caused by the project are shown to result in a substantial, long-term reduction in the demographic viability of an avian population, then adaptive management must be implemented to reduce impacts. Those adaptive management strategies, should they be required, may include additional long-term monitoring. The commenter also appears to refer to the "lake effect." The lake effect refers to the perception of solar panels as water by birds. Solar panels are both reflective and have a strong polarization signature, which are elements thought to mimic water or related suitable habitat. As a result, some have theorized that solar panels can attract bird species that mistake the panels for bodies of water, potentially leading to increased collisions, stranding within site fencing once they land, or other forms of distress. The lake effect is at present a hypothesis that remains unsupported by empirical research. The cause of avian injuries and fatalities at commercial-scale solar projects are being evaluated by the USFWS, CDFW, and others. No formal studies have been conducted at commercial-scale solar projects that establish a clear causal link between such projects and the types of avian mortality and injury documented on existing solar project sites. However,

to reduce potentially significant direct and indirect impacts to migratory birds, Mitigation Measure MM 4.1-6 and MM 4.1-7 would be implemented to ensure solar panels and hardware are designed to minimize glare and spectral highlighting as described in Section 4.1, Aesthetics. No changes to the EIR are required to address the comment.

- V:** The comment states that the project may impact native wildlife nursery sites because species are reproducing on the project site.

Native wildlife nursery sites include specific features such as bat maternity roosts and do not encompass all areas in which species reproduce. As stated on page 4.4-69 of the Draft EIR, native wildlife nursery sites are absent from the project site; therefore, impacts to wildlife nursery sites will not occur. No changes to the EIR are required to address this comment.

- W:** The comment recommends consultation with the appropriate wildlife agencies to determine the need to obtain an ITP for desert tortoise, MGS and SWHA.

Should desert tortoise, MGS or SWHA be observed on the project site, appropriate consultation with the wildlife agencies would occur. Please refer to responses to Comments 1-D, 1-E, and 1-F above.

- X:** The comment requests that the Habitat Mitigation Monitoring Plan, Worker Environmental Awareness Training Program, Joshua Tree Preservation Plan, Raven Management Plan, and the Avian Mortality Monitoring Program be provided prior to publication of the Final EIR.

These plans are typical Kern County preconstruction compliance requirements and they will be required to be prepared and approved prior to the issuance of grading and building permits. These plans are not required as part of the CEQA review process, as they are required pursuant to mitigation measures that establish performance standards and identify actions to achieve those standards. No changes to the EIR have been made to address this comment.

- Y:** The comment recommends the cumulative analysis of impacts to biological resources include an analysis of cumulative impacts at the species level, and includes SWHA and MGS as examples of species to be analyzed.

Section 4.4.5 includes an appropriate discussion of cumulative impacts to biological resources, including special status species. Section 4.4.5 addresses the potential for the project and other related projects and urbanization pressures to result in cumulative impacts to biological resources within the relevant bioregion (Antelope Valley). Specifically, on page 4.4-72, the Draft EIR concludes that “given the number of present and reasonably foreseeable future development projects in the Antelope Valley, the project, when combined with other projects, would have an incremental contribution to cumulative loss of foraging and nesting habitat for special-status species. Implementation of Mitigation Measures would reduce impacts to biological resources to less-than-significant levels on the project-level scale. However, the project, when combined with other related development projects proposed throughout the County, the cumulative impact would be significant and unavoidable.” Species-level analyses within Section 4.4 also provide relevant details regarding SWHA and MGS habitat in the region. This information was considered by the County in determining that cumulative impacts would be significant and unavoidable. Additional species-level cumulative analysis is not required to reach the conclusion that cumulative impacts to special-status wildlife species would be significant and unavoidable even with mitigation measures

implemented. (See 14 Cal Code Regs §15130(b).) No changes to the EIR are required to address this comment.

Please also see responses to comments 1-D and 1-E above.

Z: The comment provides concluding remarks and reiterates the request for review copies of the Habitat Mitigation Monitoring Plan, Worker Environmental Awareness Training Program, Joshua Tree Preservation Plan, Raven Management Plan, the Avian Mortality Monitoring Program, and the Final EIR.

Please see response to Comment “X” above. No further response is required.

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Comment Letter 10: International Brotherhood of Electrical Workers, Local Union No. 428

Local Union No. 428



**INTERNATIONAL BROTHERHOOD
of ELECTRICAL WORKERS**

Via U.S. Mail and E-Mail

Lorelei H. Oviatt, AICP, Director
Kern County Planning and Natural Resources
Department
2700 "M" Street, Suite 100
Bakersfield, CA 93301
loreleio@kerncounty.com

Alexis Brito, Planner I
Kern County Planning and Natural Resources
Department
2700 "M" Street, Suite 100
Bakersfield, CA 93301
Britoal@kerncounty.com

Re: Enterprise Solar Storage Project by Enterprise Solar Storage, LLC (PP23401)

Dear Ms. Oviatt and Mr. Brito:

International Brotherhood of Electrical Workers ("IBEW") Local 428 represent hundreds of men and women living in Kern County and working in the electrical construction trade performing work on renewable energy facilities throughout the region.

A

IBEW Local 428 is pleased to support the Enterprise Solar Storage Project. The Project would involve construction and operation of a photovoltaic solar facility and associated infrastructure necessary to generate 600 MWs of renewable electrical energy with up to 1,000 MWs of energy storage capacity in Kern County. The Enterprise Solar Storage Project would provide renewable energy and critically needed flexibility to advance California's Renewable Portfolio Standard goals and climate policies and to enhance electrical grid reliability.

IBEW Local 428 supports projects, such as the Enterprise Solar Storage Project, that provide good jobs and sustained viability and growth of California's renewable energy industry. The Project will hire trained local construction workers, maintain area wage standards and provide health insurance. This will ensure that the project provides maximum economic and employment benefits to Kern County. In addition, the Project will provide job training opportunities for the youth of the region for careers in the construction industry through the hiring of apprentices and financial support for joint labor-management apprentice training programs.

B

IBEW Local 428 believes that construction and operation of this renewable energy project will benefit Kern County and the State of California. We are pleased to be able to support the Enterprise Solar Storage Project.

Sincerely,

Brian Holt
Business Manager/ Financial Secretary

BRIAN HOLT
BUSINESS MANAGER/FINANCIAL SEC.

3921 SILLECT AVENUE
BAKERSFIELD, CALIFORNIA 93308

PHONE (661) 323-2979
FAX (661) 323-1834

AFL-CIO



Response to Comment Letter 10: International Brotherhood of Electrical Workers, Local Union No. 428

- A.** The comment introduces the International Brotherhood of Electrical Workers (IBEW) Local 428 and its hundreds of members living in Kern County, and the comment restates the project description and the project's goal of providing renewable energy and critically needed flexibility to advance California's Renewable Portfolio Standard goals and climate policies to enhance grid reliability. This comment does not constitute a substantive comment on the DEIR under CEQA, as such no revisions to the DEIR have been made and this comment requires no further response.

- B.** The commenter states that they are in support of the Enterprise Solar Storage Project. The commenter goes on to state that solar project such as the Enterprise Solar Storage Project will provide maximum economic and employment benefits to Kern County and provide job training for the youth. The comment does not require a response.

Comment Letter 11: International Association of Bridge, Structural, Ornamental, and Reinforcing Iron Workers, Local Union 416



International Association of
Bridge, Structural, Ornamental, and Reinforcing Ironworkers
Local Union 416

January 16, 2024
Via U.S. Mail and E-Mail

Lorelei H. Oviatt, AICP, Director
Kern County Planning and Natural Resources
Department
2700 "M" Street, Suite 100
Bakersfield, CA 93301
loreleio@kerncounty.com

Alexis Brito, Planner I
Kern County Planning and Natural Resources
Department
2700 "M" Street, Suite 100
Bakersfield, CA 93301
Britoal@kerncounty.com

Re: Enterprise Solar Storage Project by Enterprise Solar Storage, LLC (PP23401)

Dear Ms. Oviatt and Mr. Brito:

Ironworkers Local 416 represents hundreds of men and women living in Kern County and working in the ironworking construction trade performing work on renewable energy facilities throughout the region.

A

Ironworkers Local 416 is pleased to support the Enterprise Solar Storage Project. The Project would involve construction and operation of a photovoltaic solar facility and associated infrastructure necessary to generate 600 MWs of renewable energy with up to 1,000 MWs of energy storage capacity in Kern County. The Enterprise Solar Storage Project would provide renewable energy and critically needed flexibility to advance California's Renewable Portfolio Standard goals and climate policies and to enhance grid reliability.

Ironworkers Local 416 supports projects, such as the Enterprise Solar Storage Project, that provide good jobs and sustained viability and growth of California's renewable energy industry. The Project will hire trained local construction workers, maintain area wage standards and provide health insurance. This will ensure that the project provides maximum economic and employment benefits to Kern County. In addition, the Project will provide job training opportunities for the youth of the region for careers in the construction industry through the hiring of apprentices and financial support for joint labor-management apprentice training programs.

B

Ironworkers Local 416 believes that construction and operation of this renewable energy project will benefit Kern County and the State of California. We are pleased to be able to support the Enterprise Solar Storage Project.

Sincerely

Johnny Escobedo
Business Agent
(562) 965-7457

13830 San Antonio Dr., Norwalk, CA 90650 • (562) 868-1251
960 Wigwam Pkwy., Suite 130, Henderson, NV 89014 • (702) 434-7416
www.ironworkers416.org

Response to Comment Letter 11: International Association of Bridge, Structural, Ornamental, and Reinforcing Iron Workers, Local Union 416

- A:** The comment introduces the Ironworkers Local 416 and its hundreds of members living in Kern County, and the comment restates the project description and the project's goal of providing renewable energy and critically needed flexibility to advance California's Renewable Portfolio Standard goals and climate policies to enhance grid reliability. This comment does not constitute a substantive comment on the DEIR under CEQA, as such no revisions to the DEIR have been made and this comment requires no further response.
- B:** The commenter states that they are in support of the Enterprise Solar Storage Project. The commenter goes on to state that solar project such as the Enterprise Solar Storage Project will provide maximum economic and employment benefits to Kern County and provide job training for the youth. The comment does not require a response.